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Agriculture

Economic  
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Service

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# Fruit

## Outlook and Situation Report

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PROCUREMENT SECTION  
GENERAL SERIAL RECORDS

### U.S. Apples Regional Production

Billion lbs.



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## SUMMARY

*Smaller supplies and stable demand* will keep fruit prices relatively high this fall. The August 1 forecast for 1985 noncitrus production is 12.6 million tons, off fractionally from last year. Apple and pear crops are down 3 and 7 percent but supplies of table grapes will be 16 percent larger based on August 1 conditions. The 1985/86 citrus crop probably will be small as a result of freeze damage in Florida and Texas in 1983 and again this year.

*Supplies of most canned fruit* are likely to increase because of a larger carryin. However, demand has been sluggish and resulting weak prices are forcing canners to offer promotional allowances to stimulate sales. Despite this situation, prices of most canned fruit will remain relatively high because of the generally increased cost of fruit.

*Supplies of dried fruit will remain ample this season.* Raisin production is likely to be up from last year, and with larger stocks, supplies should be substantial during 1985/86. Demand has been strong and raisin prices may improve somewhat. Despite a smaller crop, the total supply of prunes in 1985/86 will be larger than last season due to more carryin. Prune prices are not expected to rise appreciably.

*Strawberry deliveries to freezers* are expected to be near last year's level and

larger stocks should ensure adequate supplies of frozen products this year. A large crop and increased carryin stocks will result in heavy supplies of frozen tart cherries. The prices processors are offering growers are close to last year's levels and retail prices for frozen fruit and berries are expected to hold steady through the season.

*Smaller citrus fruit supplies* this season boosted average prices for fresh and processed products well above 1983/84 figures. However, an increased juice yield resulted in the 1984/85 frozen concentrated orange juice (FCOJ) pack only slightly below 1983/84. Additionally, a larger carryin coupled with increased imports brought this season's FCOJ supply moderately above year-ago levels. Higher prices have slowed movement, which combined with a price reduction of Brazilian orange juice, have weakened f.o.b. prices. If the shipments do not improve substantially, carryover is likely to be well above last season.

*Tree nut supplies should be ample.* Although the almond crop will be smaller, demand does not look sufficient to absorb a large carryin and production increases in Italy and Spain, indicating lower prices this season. Export prospects for walnuts will continue to increase with the decline in France's production.

## GENERAL PRICE OUTLOOK

For the second consecutive month, July prices received by fruit growers were below a year ago. The July index of grower prices for fresh and processing fruit fell 2 percent to 182 (1977=100) due to a sharp decline in oranges. The index is now 22 percent below a year earlier, with lower prices for lemons, oranges, and apples more than offsetting higher prices for grapefruit, peaches, and strawberries. Prices are expected to decline further this fall with seasonal increases in supplies of apples, pears, and citrus. However, noncitrus prices are likely to remain relatively high with stable demand. Citrus prices are also likely to be relatively high this fall because the 1985/86

crop should be small as a result of freeze damage in Florida and Texas in 1983 and 1985.

Retail prices of fresh fruit continued to decline in July. The Bureau of Labor Statistics' (BLS) consumer price index for fresh fruit, 370 (1967=100) in July, was down almost 3 percent from June, but still 7 percent above a year ago. The decline was mainly attributed to a sharp decrease in banana prices. However, retail prices of apples and oranges rose slightly. As supplies of apples and citrus increase seasonally this fall, retail prices of fresh fruit will drop further. However, stable demand, small citrus crops, and smaller supplies of apples and pears will keep retail prices relatively high this fall.

Table 1.--Index of annual and quarterly prices received by growers for fresh and processing fruit, 1982-85

Year	Annual	1st	2nd	3rd	4th
1977=100					
1982	175	137	151	249	163
1983	122	126	127	110	125
1984	197	135	171	240	243
1985		187	179	1/182	

1/ July's figure only.

SOURCE: Agricultural Prices, SRS, USDA.

Table 2.--Annual and quarterly consumer price indexes for fresh fruit, 1982-85

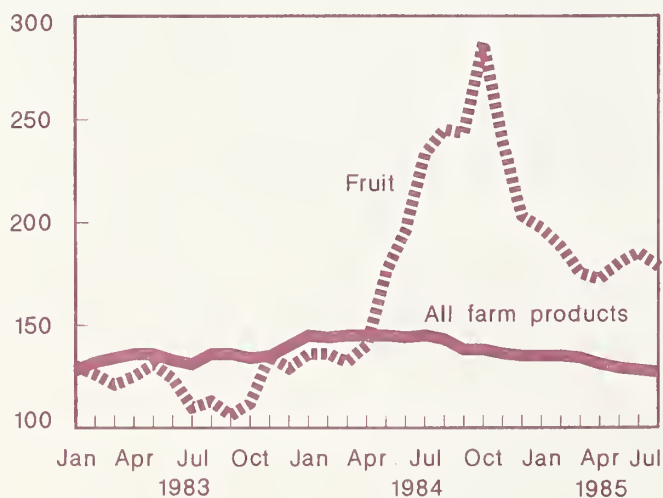
Year	Annual	1st	2nd	3rd	4th
1967=100					
1982	309	289	322	333	293
1983	296	274	301	324	285
1984	329	295	321	355	343
1985		356	377	1/ 370	

1/ July's figure only.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

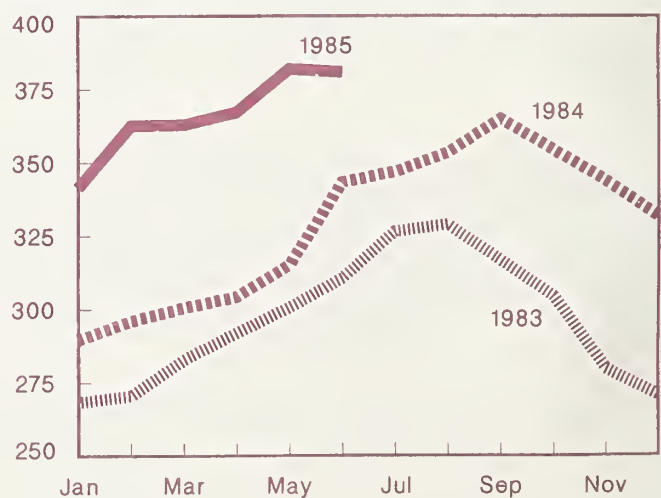
### Prices Received by Producers, Fruit and All Farm Products

1977=100



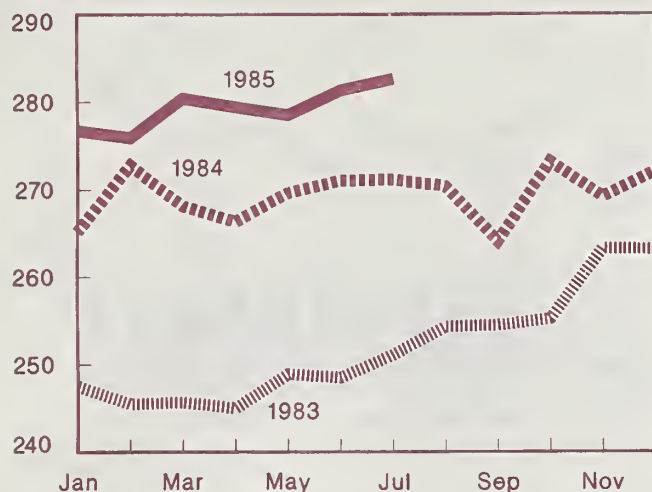
### Fresh Fruit: BLS Consumer Price Index

Percent of 1967



## Canned Fruit: BLS Wholesale Price Index

Percent of 1967



Retail prices of processed fruit have steadily increased, led by canned fruit and FCOJ. The July index of processed fruit, reported by the BLS at 169.3 (December 1977=100), was almost 4 percent above a year ago. Prices of most processed citrus items have been strong. However, sluggish movement and larger supplies have weakened FCOJ prices and several packers recently announced a price reduction to stimulate sales. Supplies of canned fruit are expected to remain small because of low carryover stocks and smaller crops of Clingstone peaches and Bartlett pears. Supplies of dried fruit are expected to remain ample. Overall, retail prices of processed fruit are not likely to rise appreciably even with stable demand.

## NONCITRUS

The August 1 forecast for this year's noncitrus production of all major tree fruits and grapes is 12.6 million tons, slightly below last year. Most summer fruit crops are smaller than a year earlier and f.o.b. prices generally have been above 1984 levels. With larger grape supplies offsetting slight declines of apple and pear (other than Bartletts) crops, fall supplies of fresh noncitrus are expected to be adequate to meet market demand. However, with rising demand, prices of fresh noncitrus fruit this fall will likely be above a year ago.

Table 3.—U.S. noncitrus fruit: Total production, 1983, 1984, and indicated 1985

Crop	1983	1984	1985
1,000 tons			
Apples	4,187	4,143	4,036
Apricots	94	127	139
Cherries, sweet	181	182	133
Cherries, tart	77	136	135
Grapes	5,506	5,164	5,543
Nectarines	185	183	200
Peaches	928	1,322	1,054
Pears	775	710	661
Plums and prunes	674	718	651
Total	12,607	12,685	12,552

SOURCE: Crop Production, SRS, USDA.

Table 4.—Frozen fruit and berries: Cold storage holdings, June 30, 1983-85

Commodity	as of June 30		
	1983	1984	1985
1,000 pounds			
Apples	53,139	57,785	51,421
Apricots	10,477	13,355	6,450
Cherries	21,729	17,687	63,025
Grapes	3,897	5,259	3,592
Peaches	22,327	13,699	19,518
Blackberries	8,131	4,601	5,022
Blueberries	9,267	33,841	20,264
Boysenberries	2,333	2,630	2,982
Raspberries, red	18,798	9,555	10,671
Strawberries	225,133	213,656	251,641
Other fruits and berries	95,233	79,404	94,049
Total	470,464	451,472	528,635

SOURCE: Cold Storage, SRS, USDA.

## Apples

### *Slightly Smaller Crop Expected*

The initial forecast for U.S. 1985 apple production is 8.07 billion pounds, 3 percent below last year.

Although the forecast for the Eastern States, 3.03 billion pounds, is down 7 percent from last year, New York, the leading State, expects to harvest 4 percent more. However, most other States in the East expect to harvest fewer apples because of the spring freeze. Pennsylvania's crop, 475 million pounds, is down 17 percent, while Virginia's crop of 370 million pounds, is down 20 percent.

The Central States expect 1.53 billion pounds, up 26 percent from 1984, primarily due to a 30-percent increase in Michigan production. Conditions have been excellent for set and sizing and the crop is maturing 7 to 10 days ahead of normal.

Apple production in the Western States is expected to decline by 8 percent from last year to 3.51 billion pounds. Washington, the leading apple producer, is expecting a crop of 2.5 billion pounds, down 15 percent from 1984 due to a record cold snap following unseasonably warm temperatures in early April. California's crop of 540 million pounds is up 11 percent from a year ago. Fruit quality is reported good and the crop is sizing with no major problems.

### *Grower Prices Up*

The smaller crop and reduced supplies of fresh oranges moderately improved the 1984 season average apple price for growers from 1983. Higher prices were indicated for both fresh and processing outlets. The estimated grower prices for fresh apples averaged 15.5 cents a pound, up 4 percent from 1983, while those for processing apples averaged \$112 a ton, compared with \$103 in 1983.

The seasonally reduced supplies strengthened grower prices for fresh apples. The July price, 17.5 cents a pound, rose 42 percent from June, but was still 6 percent below a year ago. Fewer apples will be available for fresh market this season because of the sharply reduced Washington crop. Domestic demand for fresh apples is likely to

Table 5.--Apples: Regional production, 1983, 1984, and indicated 1985

Area	1983 1/	1984 1/	1985
Billion pounds			
East	3.24	3.25	3.03
Central States	1.18	1.21	1.53
West	3.95	3.82	3.51
Total U.S.	8.37	8.28	8.07

1/ Includes unharvested production and harvested not sold (million pounds): United States: 1983--20.6, 1984--14.4.

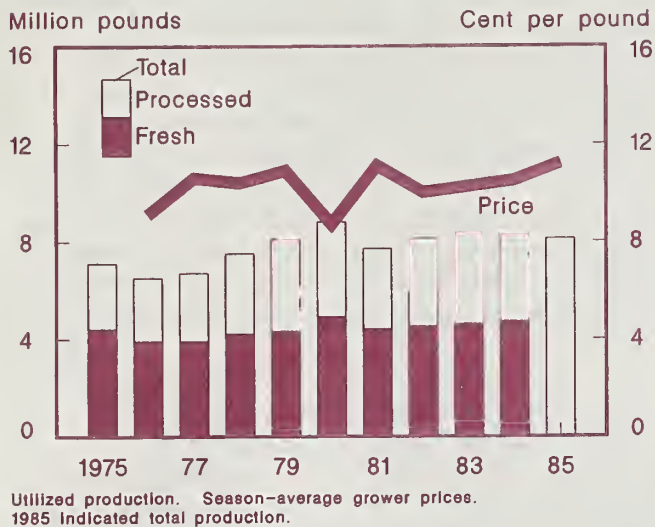
SOURCE: Crop Production, SRS, USDA.

Table 6.--Processed apples: Season-average price per ton received by growers, by type of use, principal States, 1982-84

Use and State	1982	1983	1984
Dollars			
Canning:			
Michigan	127.00	124.00	138.00
New York	124.00	116.00	132.00
Pennsylvania	135.00	119.00	138.00
Virginia	131.00	106.00	130.00
Washington	145.00	112.00	117.00
West Virginia	134.00	118.00	182.00
United States	132.00	117.00	135.00
Juice and cider:			
California	133.00	120.00	90.00
Michigan	86.00	94.00	92.00
New York	95.00	84.00	84.00
Pennsylvania	102.00	84.00	96.00
Virginia	101.00	78.00	88.00
Washington	112.00	85.00	117.00
United States	103.00	89.00	96.00
Frozen:			
Michigan	144.00	180.00	166.00
New York	134.00	138.00	126.00
United States	143.00	161.00	151.00
Dried:			
California	134.00	156.00	136.00
New York	118.00	130.00	124.00
United States	132.00	106.00	85.00

SOURCE: Noncitrus Fruits and Nuts Mid-Year Supplement, SRS, USDA.

## U.S. Apple Production, Utilization and Prices



remain stable. Export demand may improve somewhat if the U.S. dollar continues to weaken. Thus, with smaller supplies and rising demand, fresh apple prices will probably rise this season. Demand for this year's processing apples looks favorable in light of continued rising demand for processed apple items. The possibility of more dual-purpose apples shifting to the fresh market will also improve processing prices. The Michigan Processing Apple Growers Marketing Committee has recommended the minimum negotiated prices for most processing apples moderately above last year's levels, despite the sharply larger crop.

### Exports Down, Imports Up

Reflecting sluggish shipments to Canada and Europe, U.S. fresh apple exports of 209,835 metric tons during 1984/85 were down 6 percent from the previous year. Because of larger crops in Western Europe, several major countries cut apple imports substantially. The higher apple prices and strong U.S. dollar contributed to significantly reduced Canadian purchases. Exports to the East Asian and Pacific areas, primarily Hong Kong, Malaysia, and Singapore, showed strong gains. However, purchases by Taiwan, one of our major customers, were down moderately. Exports to the Middle East and North Africa also decreased slightly.

During 1984/85, U.S. fresh apple imports increased slightly from a year ago, led by

larger shipments from France, the Republic of South Africa, and New Zealand, while purchases from Canada were down 27 percent.

## Grapes

### Moderately Larger Crop Expected

On August 1, the U.S. grape crop was forecast at 5.54 million tons, up 7 percent from 1984. The substantially larger California crop is chiefly responsible, while smaller crops are expected in other major States.

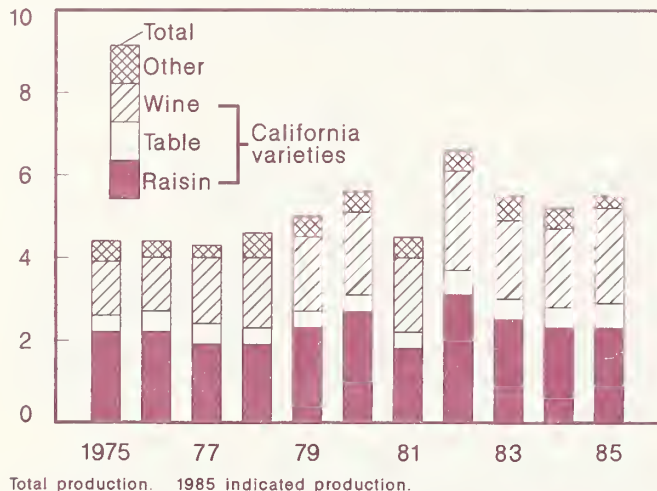
The California grape crop—5.1 million tons—is 10 percent above 1984. California accounts for 92 percent of the U.S. total, up from 90 percent in 1984. Raisin-type production in California is forecast at 2.3 million tons, up 2 percent from last season, but 9 percent less than 1983. A number of vineyards have been pulled or abandoned since last season. Additionally, approximately 30,000 acres of Thompson Seedless vineyards are enrolled in the raisin diversion program. The acreage will be certified as not harvested and any grapes produced will be discarded. In July, hot weather and other factors reduced the yield potential by lowering berry growth and cluster size.

California's wine grape crop is forecast at 2.25 million tons, up 18 percent from 1984. Bearing acreage increased nearly 4 percent to 325,000 acres. However, a number of growers have reported that portions of their acreage will be left unharvested due to unprofitable prices. Pullouts and vineyard abandonments have been significant. The forecast for table-type grapes in California is 550,000 tons, up 16 percent from last year and 9 percent above 1983. The crop is maturing earlier, but total production potential has been reduced somewhat by the hot June and July weather.

Total grape production in other States is estimated at 443,400 tons, down 15 percent from 1984 because of sharply smaller crops in New York and Washington. The New York crop is forecast at 173,000 tons, 13 percent below 1984, while Washington's crop is forecast at 119,000 tons, down 29 percent from last year because of the spring frost.

## U.S. Grape Production

Million tons



The Pennsylvania crop is also expected to be down 8 percent. However, the Michigan crop is estimated at 55,000 tons, 12 percent above 1984, but 8 percent less than in 1983. The quality of this year's crop is good with high sugar content and moderate acid.

### Lower Prices Expected

Because of smaller supplies early this season, opening f.o.b. prices for fresh grapes were well above a year ago. But increasing shipments have pushed prices down to levels below last year. In mid-August, the f.o.b. prices for Thompson Seedless in Kern County, California, were reported at \$7 per 23-pound lug, compared with \$8 a year ago. Fresh market grape supplies will be larger this season because of the bigger crop and the weak market for multipurpose varieties, particularly Thompson Seedless, due to more wine and raisin grapes and relatively sizable stocks of raisins and wine.

The grape crush in New York and Washington is likely to decline this year. However, California's crush will be up due to the larger wine grape crop in that State. Thus, large stocks, more imported wine, and a larger crush will lead to greater wine supplies. Consequently, growers will receive lower prices in California this season. Even with the generally strong economy, demand for wine remains sluggish. According to the Wine Institute, California shipments during the

first 5 months of 1984 were up only slightly from a year earlier, and shipments of bottled foreign grape table wine to U.S. markets during the first 4 months were slightly less than a year ago. Wholesale prices of table wine have been near last year's levels. The BLS July wholesale price index of table wine, 100.6 (December 1983=100), was slightly above a year ago. In light of sluggish domestic shipments of wine and a larger crop, grower prices for California wine type grapes are expected to average below last year's \$202 a ton.

A strong economy, lower prices, and increased promotional activities have strengthened demand for U.S. raisins in both domestic and export markets. However, carryover stocks will still be approximately 10 percent above the previous season. With a larger raisin grape crop and reduced demand from wineries, the output of raisins in 1985 should exceed last year and the total supply during the coming season will remain heavy. Export demand for raisins is expected to remain healthy in light of the continued promotional program from the USDA and industry. Additionally, supplies of raisins in several major producing countries, particularly Greece and Turkey, may be relatively small because of the depleted carryover stocks. Domestic raisin shipments are expected to stay up because of the relatively strong economy and lower prices. The BLS July wholesale price index for raisins, at 355 (1967=100), was 27 percent below a year earlier. Heavy demand may strengthen prices somewhat.

## Nectarines

### Record Crop Expected

The 1985 California nectarine production is forecast at a record 200,000 tons, 9 percent above last year because of more bearing acreage. While the large volume has resulted in below average fruit size, the quality of the fruit is very good.

Because of the record crop and rapid maturity resulting from good June weather, nectarine shipments through early August were running moderately above last year's

Table 7.--Nectarines: Acreage, production, yield per acre, 1978 to date

Season	Acreage			Production	Yield per bearing acre
	Bearing	Nonbearing	Total		
	1,000 acres			1,000 tons	Tons
California:					
1978	14.7	8.9	23.6	148.0	10.07
1979	16.5	9.7	26.2	172.0	10.42
1980	18.4	9.0	27.4	191.0	10.38
1981	21.0	7.4	28.4	182.0	8.67
1982	22.2	2.4	24.6	178.0	8.02
1983	22.3	4.4	26.7	185.0	8.30
1984 1/	23.9	4.5	28.4	183.0	7.66

1/ Preliminary.

SOURCE: California Crop and Livestock Reporting Service.

pace. However, f.o.b. prices have remained strong probably because of reduced supplies of other fresh summer fruit. In mid-August, the shipping point price of nectarines (sizes 54-56) was reported at \$8.50 per two-layer lug in the central and south San Joaquin Valley. The season-average price received by growers will likely be above last year's \$228 a ton in view of light supplies of other summer fruits.

### Peaches

#### *Crop Down Sharply*

The 1985 peach crop is forecast at 2.11 billion pounds, a 20-percent drop from 1984. California Clingstone peaches that are used mostly for canning account for 1.02 billion pounds of the total, off 2 percent. The California freestone crop, at 440 million pounds, is 1 percent below 1984. Production in the nine Southern States is forecast at 362 million pounds, less than half of last year's crop. Production is down in all the Southern States, except Texas, but South Carolina's shortfall is the chief cause of the sharply lower outturn. North Carolina also experienced a devastating setback and the State has no significant commercial production due to the spring frost. The Georgia crop is estimated at 80 million pounds, down 47 percent.

Crops in several States that grow a large quantity of late peaches show a mixed pattern. The New Jersey and Michigan crops

are up 80 and 22 percent from last year, while Pennsylvania will harvest only 30 million pounds, down 65 percent from 1984, and the Washington crop may be down about 21 percent.

#### *Prices Higher*

Shipments of peaches to the fresh market have lagged, mainly because of slower movement from California, Georgia, and South Carolina. As a result, f.o.b. prices from all sources (South Carolina, Georgia, and California) are up from last season. Early August f.o.b. prices for South Carolina peaches at shipping points were quoted at \$10 per two-layer lug tray pack, size 2 1/4" and up, compared with \$6 a year ago. In mid-August, California peaches in the central and south San Joaquin Valley were quoted at \$7 per two-layer lug tray pack of 56-64's, compared with \$4 in 1984. Given the overall downturn in production and the close of the season, prices for fresh peaches will likely remain firm. The California Peach Association and canners have agreed to a 1985 field price of \$188.50 per ton for Clingstone peaches, compared with \$183 in 1984. The California Freestone Peach Association has established a price of \$146 a ton for 1985 Freestone canning peaches, up 4 percent from 1984.

#### *Canned Clingstone Carryin Up*

The total pack of canned clingstone peaches is expected to decline slightly due to

the smaller California crop. The industry estimates that approximately 18 million cases (24-2 1/2's) will be packed this season. Carryover stocks on June 1 totaled 4.2 million cases, well above 1984's 1.1 million. Consequently, the total supply for 1985/86 will be substantially above last year's level. Because of the sluggish movement, packers have offered promotional allowances for certain size cans of peaches through August to stimulate sales. Nevertheless, with higher cost of the fruit, canned peach prices will likely remain relatively high during 1985/86.

### *Canned Peach Exports Down*

Exports of canned peaches during 1984/85 totaled 11,431 metric tons, a 28-percent reduction from the previous season. Shipments declined to almost all countries, but sharply reduced purchases by Canada and Japan were chiefly responsible. Exports to West Europe, the Middle East, and North Africa, although a small quantity, also showed significant declines. Prospects for canned peach exports during 1985/86 are not very encouraging unless the U.S. dollar continues to weaken.

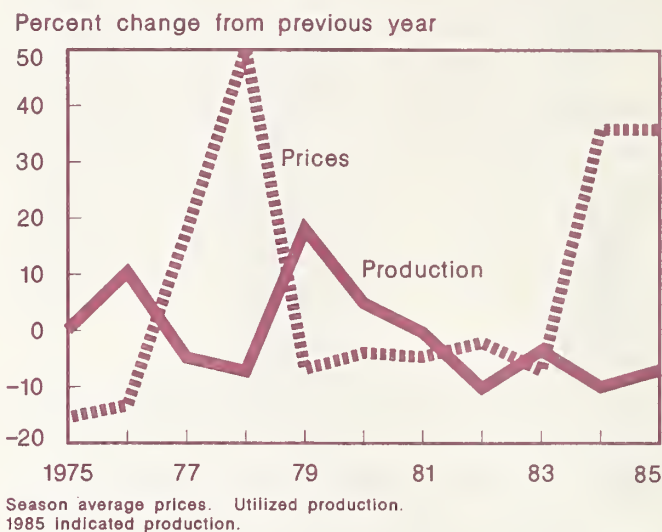
## **Pears**

### *Crop Down Substantially*

The August 1 forecast for the 1985 U.S. pear crop, at 660,600 tons, was down 7 percent from last year and 15 percent less than the 1983 crop. Bartlett output in the three Pacific Coast States was forecast at 415,000 tons, a 7-percent reduction from 1984. Smaller crops from California and Washington more than offset Oregon's increased output. The California crop quality is excellent with large fruit size and high sugar content.

In this region, production of pears other than Bartletts was estimated at 210,500 tons, a 4-percent reduction from last year. Smaller crops are expected for Oregon and Washington, the principal suppliers of pears for the fresh market in winter and spring. The California crop is up 5 percent from 1984 with large size and high sugar content. Utah's output will be moderately smaller than in 1984, while Colorado is expecting a much larger crop and good quality. Most of the remaining U.S. crop is centered in Michigan

## **U.S. Pears: Changes in Production and Prices**



and New York, where production was reported to be considerably smaller because of adverse weather.

### *Prices Up Substantially*

Because of the smaller California crop, shipments of fresh Bartletts through early August were well behind last year's pace. Opening f.o.b. prices for fresh Bartletts were sharply above a year ago, but are declining with increased shipments. In mid-August, f.o.b. prices were \$14.60 a standard box in Mendocino County, California, compared with \$13.20 a year earlier. The smaller California crop is likely to keep fresh Bartlett prices firm throughout the season. Additionally, demand for Bartlett pears from packers will be strong because of a depleted carryover stock of canned pears. So far, California growers and canners have not agreed on a field price for pears. With a smaller crop and strong demand, the field price is expected to be above last year's \$175 a ton. The smaller crop of winter pears in the Northwest will also keep grower prices above last year's high during the fall and winter.

Because of higher prices, demand for canned pears was weak during 1984/85. Nevertheless, the sharply smaller supply still resulted in a 5-percent increase in carryover stocks. This season's total supply will be small, due to a smaller Bartlett crop. Prices have been strong and are expected to remain so because of the small supplies and expected higher contract prices for canning pears.

## *Exports of Fresh Pears Down*

The strong U.S. dollar and higher prices have caused sluggish U.S. exports of fresh pears. Exports of fresh pears during the 1984/85 season declined 11 percent from 1983/84 to 1,126 metric tons. Most countries made smaller purchases. Canada, the leading customer, bought almost 84 percent less than last year. The larger crops from France and West Germany also contributed to reduced purchases of U.S. pears. Consequently, shipments to Western Europe were down almost 25 percent. Purchases by Saudi Arabia were off 40 percent, while Indonesia bought substantially more. Purchases by the Latin America and the Caribbean areas also showed strong gains.

## *Plums and Prunes*

### *Plum Crop Down Considerably*

The California plum crop forecast is 165,000 tons, 27 percent less than 1984. Early varieties had a light set but mid-season and later varieties had a good set. Fruit quality is good with no major problems. Due to the smaller crop, shipments are running well below last year's pace. Reduced supplies have pushed f.o.b. prices significantly above last year's levels. In early August, the shipping point price for Santa Rosa plums was reported at \$8 a 28-pound carton in the central and south San Joaquin Valley, compared with \$4 a year earlier. Prices should remain firm as supplies decline seasonally. The season-average price is expected to be well above last year's low level of \$212 a ton.

The prune and plum crop in Idaho, Michigan, Oregon, and Washington is forecast at 45,500 tons, down 7 percent from 1984. A 63-percent reduction in the Washington crop is chiefly responsible. While the crop is also down in Idaho, the Oregon crop will be 67 percent larger. The Michigan crop is estimated at 12,000 tons, unchanged from last year.

So far, no f.o.b. price is available. But the smaller crop should strengthen prices and the season-average price is likely to be moderately above last year's \$151 a ton.

California dried prune production is forecast at 135,000 tons, 9 percent below last year. Hot weather during the first two weeks of June caused tremendous droppage of fruit, however, sizes are normal to good. Even with a smaller crop, the total 1985/86 supply probably will be more than 1984/85 because of sharply larger carryover stocks. According to the California Prune Marketing Committee, dried prune shipments during 1984/85 totaled 138,194 tons, down 8 percent from 1983/84 with reduced shipments to both domestic and export markets. A near record French prune crop has cut U.S. exports to Europe and sales to Japan are also poor.

The 1985 prune prices have not been established. Wholesale prices of dried prunes are slightly more than a year ago. The July BLS wholesale price index, at 290.1 (1967=100), was up slightly from a year ago. With larger supplies and sluggish movement, prices may be somewhat lower during the coming season than last year. The California Prune Marketing Committee has recommended that 100 percent of the 1985 prune crop be saleable.

## *CITRUS*

The final forecast for the 1984/85 citrus crop, at 10.4 million tons, is 3 percent below last season. The smaller orange crop is chiefly responsible for the decline. However, remaining supplies of most citrus fruit to be marketed fresh through the summer are larger than a year ago because of more lemons and Valencia oranges from California. Because the Florida freeze reduced fresh market supplies and there was virtually no Texas production, prices for citrus fruit average well above 1983/84. Prices for most processed citrus products have also been higher. Movement of processed orange products generally lagged last season's pace and prices are weak.

## *Oranges*

### *Remaining Supplies of California Valencias Significantly Larger*

Because of a larger crop, the remaining supply of 1984/85 California Valencias on August 3 was almost 126 percent larger than a

year earlier. Most of these oranges will provide the bulk of fresh market supplies until the 1985/86 season gets underway this fall. So far this season, shipments to all outlets are above a year earlier. Processing use recorded the largest increase. Although fresh sales to domestic and export markets were also up substantially, the relative share of the total shipments declined.

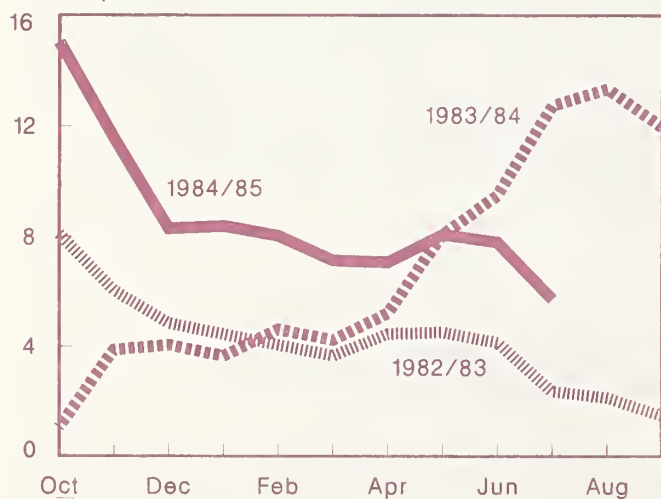
### *Sharply Higher Fresh Orange Prices*

Increased Florida orange prices resulting from the January freeze and the smaller California navel orange crop caused sharply higher prices through April for all U.S. fresh market oranges. However, increased supplies of California Valencia oranges have kept grower prices for fresh market this summer below last year's unusual high. July's U.S. on-tree returns for fresh market averaged \$8.06 a box, compared with \$13.22 a year earlier. With larger remaining supplies, Valencia prices are expected to remain below last season.

Following increased grower prices, retail prices of naval oranges averaged 44 percent above a year ago during the first 5 months of 1985. However, the larger California Valencia crop has weakened retail prices. The BLS retail price of fresh oranges in July averaged 57.1 cents a pound, unchanged from June and moderately below a year earlier. Larger supplies should keep retail prices below a year ago through the summer.

### **All Oranges: U.S. Equivalent On-Tree Returns Received by Growers**

Dollars per box



### *Exports Down and Imports Up*

Because of the strong U.S. dollar and higher prices, shipments to most countries fell substantially. During November 1984–June 1985, U.S. exports of fresh oranges totaled 299,213 metric tons, off 2 percent from a year earlier. Canada, the largest U.S. customer, bought sharply less. Hong Kong, the second largest customer, purchased 8 percent less.

Because of the improving economy, exports to the European Community (EC) bounced back from last year's low, rising from 624 to 6,646 metric tons. On the other hand, shipments to the Middle East and North Africa showed significant declines. Because of the increase in the import quota for U.S. oranges, Japan's purchases rose almost 22 percent from a year ago. After lengthy negotiations, the United States and Japan agreed on a 4-year trade pact governing citrus imports into Japan. The agreement increases the fresh orange import quota from 82,000 metric tons in 1983/84 (April–March) to 93,000 in 1984/85 — 44,750 for the general quota and 48,250 for the off-season quota. The import quota will reach 126,000 metric tons in 1987/88.

Smaller supplies have boosted U.S. imports of fresh oranges this season. During the first 7 months of 1984/85, they totaled 20,448 metric tons, up 42 percent from a year ago. However, imports from Mexico and Israel, declined sharply, accounting for only 27 percent of total imports, compared with 81 percent a year ago. Increased imports from the Dominican Republic partially offset the decreases.

### *Slightly Smaller FCOJ Pack*

Although this season's orange crop declined, juice yield rose and Florida citrus packers processed almost 118.5 million gallons of FCOJ, down only slightly from the 1983/84 season. Florida's FCOJ yield for the 1984/85 season is currently forecast at 1.38 gallons per box (42.0 degrees Brix equivalent), compared with 1.29 gallons for 1983/84. Thus, the increased carryin stocks and imports more than offset the slight reduction in pack, resulting in a moderately larger total supply available for marketing than last season. According to the Florida Citrus Processor Association, imports into Florida, mostly from Brazil, through August 3, amounted to 57

million gallons (42 degrees Brix), up 9 percent from last season. However, the rate of increase in FCOJ imports into Florida has been down significantly from the previous season.

Because of higher prices, movement of FCOJ has lagged last season's pace. Through August 3, total movement amounted to 145 million gallons, down 6 percent from a year earlier. Stocks on August 3 were 28 percent higher than last year. With the slackening movement and larger supplies, Florida packers announced a price reduction to \$5.02 from \$5.34 per dozen 6-ounce cans (unadvertised brand, f.o.b. Florida canneries), almost the same price as a year ago. If movement remains at the current rate, prices are likely to remain steady and carryover stocks will be considerably above last season's levels.

Despite the slack retail movement, prices of FCOJ steadily advanced during the first half of 1985 and averaged 9.4 percent above 1984. In July, the BLS reported that retail prices of FCOJ averaged \$1.76 for a 16-ounce container, up slightly from a month earlier and 6 percent higher than a year ago. Prices are likely to remain above last year.

#### *Smaller Chilled Orange Juice Pack*

Because of larger carryin stocks and slower movement, Florida citrus packers had processed substantially less chilled orange juice through early August. The reduced pack resulted from less orange tonnage utilized and

a smaller quantity of reconstituted frozen concentrate processed. The total Florida chilled pack for the season will not match last season's, marking the first decline since 1980/81.

In response to higher prices, movement of chilled orange juice from Florida is weak, with decreases in both domestic and export markets. The reduced movement is also due partially to an increased portion of imported FCOJ being processed into chilled orange juice outside of Florida. Prices have been steady at \$9.97 per dozen 32-ounce glass containers (f.o.b. Florida canneries), compared with \$9.49 a year ago.

#### *Smaller Supplies of Canned Orange Juice*

The smaller carryin and reduced pack resulted in significantly lower supplies of canned orange juice. Through early August, Florida packers had processed 6.7 million cases of canned single-strength orange juice (24-2's), 17 percent less than a year ago. Prices have been weak, with trading as much as 50 cents under the list price of \$13.15 per dozen 46-ounce cans (single-strength sweetened and unsweetened). This compares with \$12.50 a year ago. Higher prices have resulted in sluggish sales, down 17 percent from last year. Nevertheless, stocks on August 3 were still 19 percent below a year ago. Slow movement is likely to keep prices weak through the summer.

#### *Brazilian Citrus Outlook*

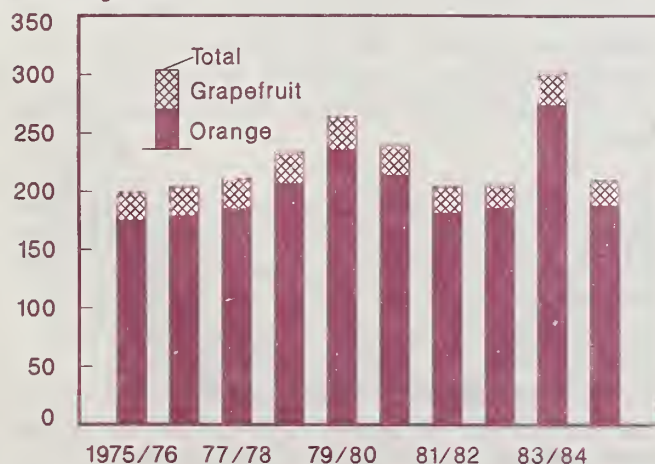
The 1985 orange crop in Sao Paulo is estimated at a record 220 million boxes, up 16 percent from the previous year. However, the juice yield is expected to fall significantly below last year's exceptional level. Thus, despite the larger crop, Brazil's FCOJ outturn will likely decline to 248 million gallons (42 degrees Brix), compared with 250 million in 1984/85.

Brazilian FCOJ exports totaled 246.5 million gallons in 1984/85 (July-June), up 45.1 million from 1983/84. With an expected total supply near last season's level, exports in 1985/86 are projected to be almost the same as 1984/85.

The Brazilian government announced a value-added tax on FCOJ for export markets.

#### **Florida Packs of Chilled Citrus Juice**

Million gallons



Season beginning October. 1984/85 pack through June 8.

Exporting firms will have the option of paying either 8.5 percent of the f.o.b. value or 17 percent of the cost of the fruit used in processing juice. The new tax is in addition to Brazil's 1-percent export levy against FCOJ shipments to all destinations and a special tax of 3.51 percent of export value fixed on sales to the United States.

## Grapefruit

### *Larger Remaining Supplies*

The final forecast for the 1984/85 U.S. grapefruit crop is 55.8 million boxes, 4 percent more than harvested in 1983/84, and remaining supplies in Southern California on July 1 were almost 12 percent more than a year earlier. The crop is usually marketed fresh during the summer. These California supplies are expected to be adequate until the Florida harvest gets underway this fall.

Freeze-reduced fresh grapefruit supplies pushed prices considerably above a year ago. U.S. on-tree returns for fresh grapefruit during 1984/85 reached a peak of \$8.34 a box in June, and in spite of recent declines, prices remained 53 percent above a year ago in July. Prices are expected to remain firm through the balance of the season.

### *Exports Down Sharply*

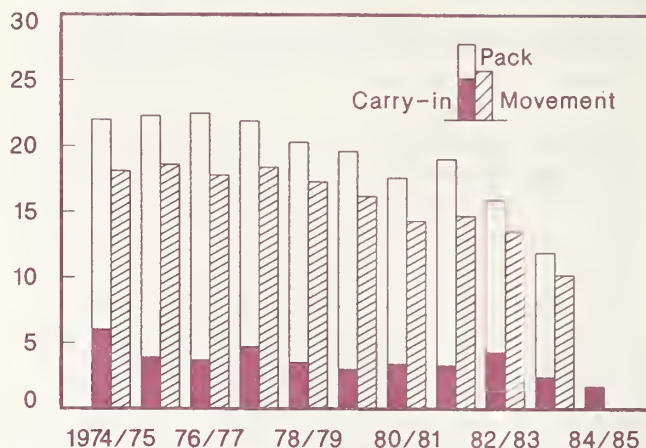
During 1984/85 ending June, U.S. exports of fresh grapefruit totaled 181,036 metric tons through June, off 24 percent from a year earlier. Lower exports were reported for all principal regions. Japan bought 30 percent fewer grapefruit than last year, accounting for only 50 percent of the total, compared with 54 percent last season. Shipments to Canada dropped 9 percent, while exports to the EC were almost 23 percent less, with France and the Netherlands, the two principal outlets, reporting sharp reduction. Exports are sagging due to higher prices and smaller available supplies.

### *More Grapefruit Juice Pack*

Because of rising demand, Florida's output of frozen concentrated grapefruit juice (FCGJ) has trended upward, totaling 24.8 million gallons through early August, 29 percent above a year ago. Despite higher

## Florida Canned Grapefruit Juice: Pack, Movement and Stocks

Million cases\*



\* 24/2's. Season beginning October.  
Source: Florida Citrus Processors Association.

prices, movement has been strong. Through early August, total movement amounted to 18 million gallons, up 29 percent from a year ago. Rising demand has pushed f.o.b. prices to \$3.87 from \$3.57 per dozen 6-ounce can (private brand, Florida canneries), compared with \$3.25 a year earlier. Despite the larger pack, stocks on August 3 were moderately smaller than last year because of a smaller carryin stock and increased movement. Consequently, prices are likely to remain firm the remainder of the season.

Florida's output of canned grapefruit juice totaled 9.8 million cases (24-2's) during 1984/85, up 14 percent from last season. Movement has been running substantially ahead of last season's pace which strengthened f.o.b. prices from \$9.25 to \$9.65 a dozen 46-ounce cans (sweetened and unsweetened), compared with \$9.00 a year ago. Despite the larger pack, increased movement and smaller carryin stocks left stocks on August 3 well below a year ago. Therefore, canned grapefruit juice prices should remain firm through the balance of the season.

Demand for chilled grapefruit juice is also rising and Florida packers processed 28 million gallons (excluding single-strength reprocessed) through August 3, up 19 percent from a year ago. The increased pack resulted entirely from more FCGJ utilization, while juice processed from fruit decreased sharply from last year. Despite higher prices, movement has been running significantly ahead of last

season's pace. F.o.b. prices have remained at \$9.02 a dozen 32-ounce glass containers (Florida canneries) since April 1, compared with \$8.54 a year ago. The larger pack more than offset the smaller carryin stocks and strong movement, resulting in stocks on August 3 slightly above a year ago. Nevertheless, prices are not expected to weaken this summer.

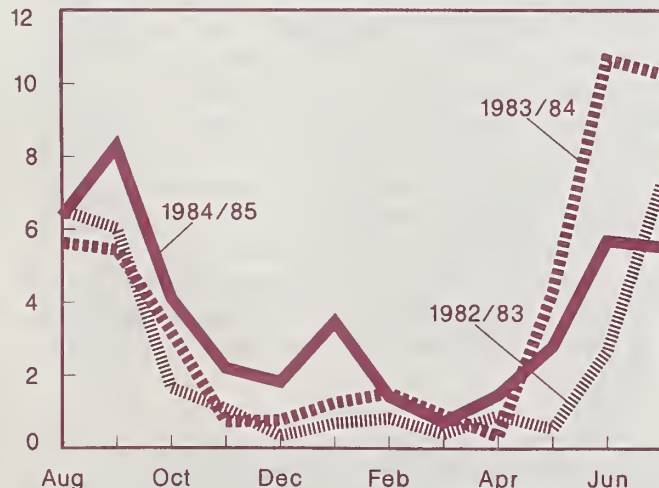
### Lemons

California and Arizona harvested approximately 25 million boxes of lemons this season, 17 percent more than in 1983/84. In California, a crop of 19.3 million boxes was estimated, up 12 percent from last season. The Arizona crop is 41 percent larger. Because of a sharply bigger crop, shipments to all outlets have increased substantially. The largest increase was for processing use, amounting to over half of total sales, up 46 percent. Domestic sales of fresh lemons increased only moderately, but the share of the crop going to this market fell from 32 percent in 1983/84 to 27 percent this season.

Total fresh lemon exports rose slightly from last season on increased sales to all major regions, led by East Asian and Pacific customers. The smaller lemon crops in Italy and Spain have strengthened our markets in the EC and sales through June were up 43 percent from a year ago. Shipments to Japan continued to increase slightly.

### All Lemons: U.S. Equivalent On-Tree Returns Received by Growers

Dollars per box



Because of strong processing demand, lemon prices are well above a year ago. The 1984/85 f.o.b. prices for fresh lemons averaged \$11.05 a carton, compared with \$9.34. With seasonally reduced supplies, prices will remain firm during the early part of the 1985/86 season.

### Limes

#### Record Lime Crop

The current forecast places the 1985/86 Florida lime crop at 1.8 million boxes, a record and an increase of 6 percent from the 1984/85 season. Lime trees -- unscathed by the January freeze -- are in excellent condition after a good early spring bloom. Bearing acreage has been declining for several seasons and is estimated at 6,700 for the 1985/86 season, compared with 6,900 last season.

With increased shipments, f.o.b. prices for fresh limes have declined from the early season high of \$8.75. In mid-August, the f.o.b. price of Florida Persian Seedless limes was quoted at \$2.25 a carton (10 pound, sizes 48-63), compared with \$2.08 a year ago. Prices are likely to fall further and may average below 1984/85 for the season.

### BERRIES

#### Strawberries

The 1985 strawberry production in the major States is forecast at 999 million pounds, up 5 percent from last year from increases in both acreage and yield. Estimates place the spring strawberry crop at 893 million pounds, 4 percent more than the 1984 crop. California, the leading State with 88 percent of the spring crop, expects 5 percent more. Estimates also indicate larger crops for New Jersey and Washington. Freezing temperatures this spring caused considerable damage to the Oregon strawberry crop. Oregon, the second largest producing State, expects to harvest 55 million pounds, off 10 percent from last year.

Shipments of fresh strawberries through August 10, were running slightly ahead of last season's pace. F.o.b. prices for fresh strawberries in California were mixed, with

higher prices reported in the central area and lower prices in the south. As supplies dwindle in southern California, the central area will provide the bulk of strawberries for the fresh market through the summer. In mid-August, f.o.b. prices for fresh strawberries in central California were quoted at \$7 a 12-pint tray (medium to large size), compared with \$4 a year ago. With the seasonal decline in supplies, prices are expected to remain firm.

Deliveries of strawberries to freezers in California totaled 152 million pounds through August 10, up 14 percent from year-earlier levels. The field price for processing strawberries in California ranged from a low of 20 cents a pound in southern growing areas to 23 cents in northern areas, compared with a range of 19 to 24 cents a pound a year ago. Currently, prices paid to growers are from 20 to 23 cents in northern producing areas. The smaller Oregon crop has resulted in a 30-percent decline in deliveries of strawberries to freezers from a year ago. Deliveries to freezers in Washington have also decreased significantly from a year ago. Field prices in the Northwest have strengthened recently within a range of 23 to 35 cents a pound, depending on the variety, compared with 34 cents a year earlier. The overall pack of frozen strawberries on the West Coast will likely be near last season.

On the other hand, imports of frozen strawberries from Mexico through August 4 totaled 40.3 million pounds, off 18 percent from a year earlier. Nevertheless, even with the reduced imports, the larger carryin still increased frozen strawberry stocks at the beginning of July 18 percent above last year.

Table 8.—Strawberry deliveries for freezing, 1984-85

State	1984	1985
Million pounds		
California 1/	138.1	157.3
Oregon 2/	58.5	40.7
Washington 2/	18.7	15.0
Total 3 States	232.8	190.9

1/ Through August 10. 2/ For the season.

SOURCES: California and Washington Federal-State Market News Service.

Consequently, larger supplies and relatively steady prices for berries are expected to keep frozen strawberry prices steady.

## TREE NUTS

### Almonds

#### *Significantly Smaller Crop*

The final forecast for the 1985 California almond crop is 495 million pounds, shelled basis, 16 percent below last year's record crop, but more than double the small crop produced in 1983. The smaller crop reflects a 21-percent reduction in the average number of nut sets per tree from last year. The nonpareil variety set is off 27 percent, while the California types declined only 14 percent. In the past 10 seasons, 1985 has the third highest average nut set, but sizes are smaller than last season and most other years.

Despite the strong U.S. dollar, export demand has been very good and domestic shipments also set a new record. According to the Almond Board of California, total exports during 1984/85 amounted to 266.8 million pounds, up 55 percent from a year ago and 9 percent above the record 1979 exports. Larger shipments to West Germany, the Soviet Union, France, and Africa were chiefly responsible. Because of smaller supplies from the almond-producing countries in Europe, the record California crop, and lower prices, exports to Western Europe have been particularly strong. West Germany, the leading customer, purchased 64.3 million pounds, up 61 percent from last season. Shipments to the Soviet Union totaled 45.2 million pounds, up from negligible quantities of a year ago. Consequently, the Soviet Union replaced Japan as the second largest customer. Combined sales to West Germany and the Soviet Union accounted for 42 percent of total exports. Purchases by Japan were off slightly. Export prospects for 1985/86 may remain relatively good in light of the weakening U.S. dollar and lower prices. However, larger 1985 almond crops from Spain and Italy may lessen demand for U.S. almonds in Europe.

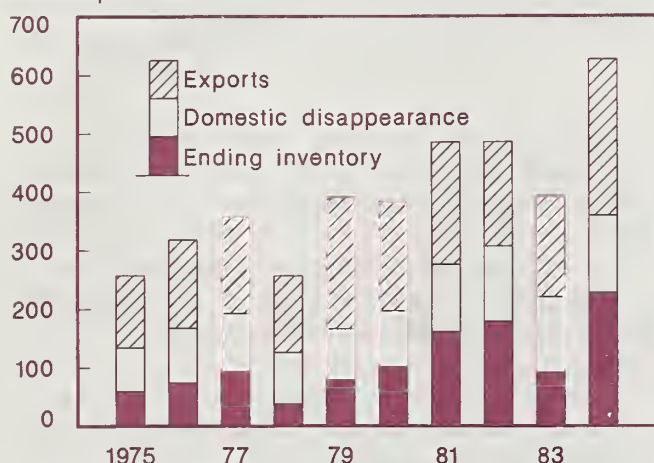
Even with a smaller crop, the total supply of almonds will likely be larger than in 1984/85 because of the huge carryin stocks.

Prices for the 1985 almond crop have not been established. With the larger supplies, prices probably will average below last year. In 1984, the U.S. average grower price was 82 cents a pound, down 21 percent from 1983.

The Secretary of Agriculture, under the authority of a Federal Marketing Order, has proposed 80 percent of the 1985 almond crop be saleable and 20 percent in a reserve.

### U.S. Almond Supply and Utilization

Million pounds



Season beginning July 1, 1984 preliminary.

Table 9.—Tree nuts in cold storage, June 30, 1983-85

Kinds	1983	1984	1985
Million pounds			
Almonds:			
In-shell	4.6	1.4	6.7
Nutmeats	87.3	42.1	146.1
Walnuts:			
In-shell	48.0	39.9	19.0
Nutmeats	19.4	17.5	19.7
Filberts:			
In-shell	.3	.4	.4
Nutmeats	3.8	1.4	1.7
Pecans:			
In-shell	47.6	75.8	45.8
Nutmeats	34.9	35.6	29.1
Other tree nuts:			
In-shell	4.6	1.4	2.0
Nutmeats	11.0	10.1	10.4
Total:			
In-shell	105.1	118.9	73.9
Nutmeats	156.4	106.7	207.0

SOURCE: Cold Storage, SRS, USDA.

### Walnuts

#### Slightly Larger Crop

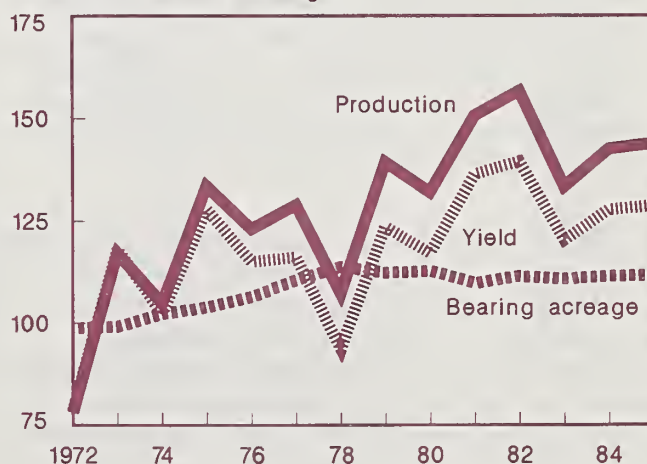
The August 1 forecast of the 1985 California walnut crop was 215,000 tons, 1 percent more than 1984 and 8 percent larger than 1983. Crop quality appears very good despite recent hot weather. Blight and codling moth problems have been minimal this year. The set appears good with individual nut sizes rated large.

According to the Walnut Marketing Board, total shipments in 1984/85 amounted to 214,850 tons (in-shell equivalent), down slightly from a year ago. Sales of in-shell walnuts totaled 135,005 tons, up 5 percent from a year ago as larger exports more than offset reduced domestic sales. Consequently, export sales increased the share of total in-shell walnuts from 56 to 63 percent this season. Shelled walnut sales to domestic and export markets were down 4 and 7 percent, respectively.

Most of the increase in exports resulted from significantly larger purchases by Western Europe, particularly West Germany, the Netherlands, and Spain, reflecting a smaller French walnut crop. France has consistently been an active competitor in the walnut market, with other EC members as its major customers. Export prospects for the 1985/86 season will be favorable because of the smaller French crop.

#### California Walnuts: Acreage, Production, and Yield Per Acre

Percent of 1972-74 average



# A Survey of Marketing and Distribution Patterns for Domestic Tree Nuts in 1983/84

by  
Ben W. Huang 1/

**Abstract:** The U.S. tree nut industry has grown rapidly. Increased demand in both domestic and foreign markets, particularly for almonds, has been answered with expanded production, which has affected firms that market tree nuts. There has been increased introduction of new food products with more nuts used as ingredients. Consequently, the channels of distribution of tree nuts have shifted. This paper describes the growth of the domestic tree nut industry, and reports results of an updated survey on market structure and distribution patterns for the five major domestic tree nuts.

**Key words:** Tree nuts, production, consumption, marketing, firms, and distribution.

The U.S. tree nut industry has grown rapidly. Production has expanded to meet increased demand in both domestic and foreign markets, particularly for almonds. Since the last Economic Research Service survey in 1974 on marketing and distribution patterns for domestic tree nuts, the bearing acreage for the five major tree nuts (almonds, filberts, pecans, pistachios, and walnuts) has increased significantly. Consequently, total production of these nuts has nearly doubled and, despite wide fluctuation of grower prices, the value of production also has more than doubled.

With the rapid expansion of production, competition among the tree nut industries has become increasingly keen. Consequently, the search for new uses has been increasingly important to the industry. This paper describes the growth of the domestic tree nut industry since 1974, and gives the results of the updated survey on market structure and distribution patterns for each of the five major domestic tree nuts. This information should be useful to growers and marketers in assessing the prospects for the industry and the role they will play in it.

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1/ Ben W. Huang is an Agricultural Economist with the Economic Research Service. The author is especially indebted to Wynne Napper for her computer and statistical support. He also extends his thanks to Robert Boersma, Agricultural Marketing Service, USDA, who carefully read and commented on the first draft of this paper.

## *Production and Consumption*

Commercial acreage of almonds, pistachios, and walnuts is located exclusively in California, while filbert acreage is concentrated in Oregon and Washington. Pecans are grown in widely scattered areas, but most commercial acreage is located in the 11 southern tier States.

Commercial bearing acreage for almonds increased steadily to approximately 370,000 in 1984, up 60 percent from 1974. This expansion can be traced to several factors: Improved cost/return margins due to increased efficiency in culture and harvesting; increased consumer acceptance due to industry promotion; increased foreign demand; favorable grower prices; and favorable Federal tax policy prior to the 1969 Tax Reform Act. Orchard investment received tax preferences under both the income tax and estate tax rules. These investments produced lower income and estate tax liabilities than those produced by an investment giving the same economic rewards but not having any tax preferences. In the estate tax, assets were valued and taxed at less than their full value, and the payment of the tax could be postponed at interest rates below the market rates.

Under the 1969 Tax Reform Act, almond growers must capitalize all costs of planting, cultivation (including fertilizer), and maintenance or development of any grove that are incurred before the close of the fourth taxable year, beginning with the taxable year

in which the grove was planted. Capitalization requirements significantly increased the after-tax costs of developing almond orchards and effectively terminated the tax shelter advantages of grove development. Consequently, the 1969 legislation had an immediate impact on new plantings and total acreage of California almonds, and was met with an immediate decrease in orchard values.

In contrast to almond acreage, walnut acreage increased only 8 percent from 1974, due to the competition for land from the other fruit and tree nuts, such as grapes, kiwifruit, almonds, and pistachios and reduced availability of suitable land.

Strong demand and short supplies for pistachios, a newcomer to the U.S. industry, generated greatly expanded bearing acreage—from 838 in 1976 to 31,900 in 1984. Sharply reduced imports during the United States-Iran crisis in the late 1970's also accelerated growth of the domestic pistachio industry.

Although there are no complete annual data series for the total acreage of filbert and pecan trees, the Census of Agriculture publishes acreage data every 4 years (most recently in 1982) for the major producing States. Pecan acreage trended upward to nearly 436,000 in 1982. A recent survey by the Oregon Crop and Livestock Reporting Service showed total filbert acreage at 25,490

in Oregon and Washington during December 1984-March 1985, up 16 percent from the 1980/81 survey.

Although yields generally fluctuate widely because of weather variations and the crops' alternate bearing characteristics, the average yield per acre has increased since 1974. The gain in yields, combined with increases in bearing acreage, has resulted in a 48-percent increase in average total production of the five nuts from 1974-76 to 1982-84. Pistachio production increased more than 400 percent from 1977-79 to 1982-84. The next largest percentage increase and largest increase in quantity was in almonds, up 63 percent from the 1974-76 average to the 1982-84 average. Production of filberts and pecans recorded increases of 55 and 48 percent respectively, but walnut production increased only 20 percent.

Because of the wide fluctuation in production, the total value of the five major tree nuts ranged from a low of \$304 million in 1974 to a high of \$709 million in 1979. Pistachios again showed the largest gain—from \$4.7 million in 1977 to \$60 million in 1984. The value of almond production rose 176 percent from 1974 to 1984.

Tree nut consumption has shown strong signs of increasing even though it is still relatively small. Combined per capita consumption of the five major tree nuts rose 30 percent from an annual average of 1.22

Table 1.-- Utilized production of tree nuts 1/

Year	Almonds	Walnuts	Pecans	Filberts	Pistachios	Total
1,000 short tons						
1974	189.0	156.5	68.6	6.7	--	420.8
1975	160.0	199.3	123.4	12.1	--	494.8
1976	233.0	183.7	51.6	7.2	--	475.5
1977	249.0	192.5	118.3	11.8	2.3	573.9
1978	142.7	160.0	125.4	14.1	1.3	443.5
1979	303.7	208.0	105.3	13.0	8.6	638.6
1980	264.4	197.0	91.8	15.4	13.5	582.0
1981	334.4	225.0	169.6	14.7	7.3	751.0
1982	283.5	234.0	109.3	18.8	21.7	667.3
1983	200.7	199.0	135.0	8.2	13.2	556.1
1984	464.8	213.0	116.2	13.4	31.6	839.0

1/ In-shell basis.

SOURCE: Noncitrus Fruit and Nut Annual, SRS, USDA.

Table 2.-- Value of production for tree nuts

Year	Almonds	Walnuts	Pecans	Filberts	Pistachios	Total
1,100 dollars						
1974	170,100	65,515	64,741	3,754	--	304,110
1975	118,400	90,795	98,200	7,388	--	314,783
1976	184,032	115,165	83,983	4,588	--	387,768
1977	264,485	139,555	136,250	8,068	4,680	548,358
1978	262,450	208,320	151,730	11,321	3,100	633,821
1979	575,280	176,176	116,663	12,369	27,520	907,857
1980	473,340	184,392	143,269	17,740	55,145	873,886
1981	299,520	228,150	184,842	11,550	19,759	743,821
1982	311,140	238,680	147,491	12,783	63,068	773,162
1983	231,920	125,569	158,389	4,576	37,548	558,002
1984	470,270	160,602	144,830	8,321	59,910	843,933

SOURCE: Noncitrus Fruit and Nut Annual, SRS, USDA.

Table 3.--Tree nuts (shelled basis): Per capita consumption, 1974-83 1/

Crop year 2/	Almonds	Filberts	Pecans	Walnuts	Pistachios 3/	Total
Pounds						
1974	.26	.05	.34	.43	--	1.08
1975	.35	.08	.33	.52	--	1.28
1976	.42	.08	.29	.52	--	1.31
1977	.45	.07	.31	.51	--	1.38
1978	.40	.08	.33	.39	.04	1.24
1979	.37	.04	.40	.48	.04	1.33
1980	.42	.05	.37	.50	.04	1.38
1981	.51	.05	.38	.49	.03	1.46
1982	.59	.07	.41	.46	.04	1.57
1983 4/	.58	.05	.40	.63	.05	1.71

1/ Civilian consumption only. 2/ Beginning August of year indicated for filberts and walnuts, September for pistachios, and July for almonds and pecans. 3/ Estimates begin in 1977. 4/ Preliminary.

SOURCE: Economic Research Service, USDA.

pounds during 1974-76 to 1.58 pounds during 1981-83. The individual nuts have not shared equally in this overall market growth. Per capita consumption of almonds has grown strongly with an increased share of the overall market. In contrast, pecans have also increased, but their share has declined. Consumption of filberts and walnuts has shown a mixed trend. Per capita pistachio consumption has been steady at 0.04 pounds for the last several years because the industry is still relatively young. Also, even though pistachio production has trended upward, the sharp fluctuation of imports and cyclical production pattern have caused steady consumption.

With the continual introduction of new products such as mixed snack packs and almond butter, rapid increases in production, and aggressive marketing strategies, per capita almond consumption is likely to rise in the years ahead. Per capita pistachio consumption is also expected to rise sharply due to the rapid growth of production and lower prices. Additionally, aggressive sales promotion is pushing up consumer acceptance. Consumption of pecans and almonds is also expected to increase, but at a slower rate. Some tree nuts such as pecans and walnuts are used largely as ingredients in other finished products rather than being consumed directly in shelled or in-shell forms.

## Marketing of Tree Nuts

The marketing of domestically produced almonds, filberts, and walnuts is regulated under Federal marketing agreement and order programs as authorized under the Agricultural Marketing Agreement Act of 1937, as amended. These programs are designed to improve grower returns by establishing minimum quality standards or volume restrictions that ensure adequate supplies to domestic markets, and divert the surplus portion of the crop to noncompetitive outlets, mostly exports. Supplies usually are allocated as saleable percentages for domestic buyers, export outlets, new uses, or diversion on the basis of market conditions. Pecans and pistachios are not regulated under a Federal marketing order.

The 1984 tree nut survey included 67 firms that directly process, shell, (or otherwise prepare for market), and sell nuts to retail, wholesale, or industrial outlets. A large number of firms are engaged in marketing almonds and pecans. Almost all the almond processing firms are located in California, where all of the walnut firms are concentrated. Approximately 19 of the firms primarily market pecans, and most are located primarily in the pecan belt from North Carolina to New Mexico. The remaining firms, located in California, Oregon, and Washington, market mainly filberts and pistachios. Among the 67 marketing firms, there are many multiple tree-nut handlers and processors. Questionnaires were sent out during the summer of 1984, and data cover the 1983/84 crop.

*Almonds* -- Marketing data were collected from 15 firms having domestic sales of 107 million pounds or nearly 84 percent of total domestic sales. Six firms were corporations, four were partnerships, three

were proprietorships, and two were cooperatives. The firms are grouped according to the number of pounds marketed. The smallest firms marketed less than half a million pounds; the largest handled 5 million or more. There were three firms that marketed more than 5 million pounds, accounting for 83 percent of the total. The leading firm in the almond industry is the California Almond Growers' Exchange, a cooperative that markets a large percentage of California almonds and is the price leader. Led by the Exchange, the marketing of almonds has been very innovative. The Exchange also markets pistachios, filberts, and macadamias. The second largest firm is Tenneco West, a subsidiary of the Tenneco Corporation, which also handles pistachios and walnuts.

*Filberts* -- Survey responses were received from six firms in Oregon. Three of the firms were corporations, two were cooperatives, and one was a partnership. Slightly over half of total filbert sales were made by the two largest processors. Four of the six firms also handle other tree nuts. All six firms handle a combined volume of nearly 7 million pounds (kernel weight). Most of the domestic filberts are marketed in-shell, probably because of sharp competition from imported shelled filberts. Handlers believe that demand for in-shell filberts is inelastic, in contrast to the very elastic demand for domestic shelled filberts.

The survey data indicate that all filberts purchased by processors were contracted. Of the total quantity, growers' deliveries to the plant accounted for 78.6 percent, and purchases from growers at farms, 21 percent. The remainder was contracted from local buyers.

*Pecans* -- Data were collected from 19 firms, 18 of which were corporations that

Table 4.--Tree nuts: Number of shellers and processors, by ownership characteristics 1984

Owner	Almonds	Filberts	Pecans	Pistachios	Walnuts	Total
Corporations	6	3	18	7	7	41
Cooperatives	2	2	1	3	1	9
Partnerships	4	1	0	3	4	12
Proprietorships	3	0	-	0	2	5
Total	15	6	19	13	14	67

marketed over one-half of the pecan crop. Three firms selling 5 million pounds or more accounted for over one-fourth of the crop; two firms with sales between 3 and 5 million pounds accounted for about 7 percent. The seven firms selling between 1 million to less than 3 million pounds accounted for 14 percent of the total crop. Seven small firms sold about 3 percent. The remainder (about one-half of the crop) was handled by other firms that were not taken part in the survey.

Almost 78 percent of pecans purchased by processors were from open markets. Of this total, 67 percent were either from grower deliveries to plants or at farms; more than 20 percent were purchased through local buyers or brokers. Purchases from dealers and importers accounted for 10 and 3 percent, respectively. Pecans purchased under contract were mostly from grower deliveries to plants and local buyers.

*Pistachios* -- Of the 13 firms that responded to the survey, seven were corporations, three were cooperatives, and three were partnerships. Tenneco West is the leading firm. Six of the responding firms also market other tree nuts. None of the firms had sales of more than 5 million pounds (kernel weight) during the 1983/84 season. The three firms with sales between 1 and 4.99 million pounds (kernel weight) accounted for over one-half of the total crop. Ten firms reported sales of less than one-half million pounds.

*Walnuts* -- The questionnaires were answered by 14 firms that market walnuts. Three of the responding firms are relatively large. Sun-Diamond Growers of California, a cooperative, is by far the largest, marketing most of the in-shell walnuts and also handling more shelled walnuts than any other company. Sun-Diamond also handles a relatively small quantity of almonds, pecans, and filberts. The small firms tend to emphasize shelled walnuts rather than the in-shell.

Seven of the 14 firms are corporations or subsidiaries of corporations, one is a cooperative, four are partnerships, and two are proprietorships. Two firms had sales of more than 5 million pounds and accounted for almost 60 percent of the total crop. The six firms with sales of over one-half million and

below 5 million pounds accounted for 8.6 percent of the crop. These firms in the survey handled altogether two-thirds of the crop.

Because the bulk of the walnut crop is marketed by the Sun-Diamond Growers of California, 93 percent of the survey total was contracted at plants or farms. The remainder of the purchases were made at open markets, either from growers at farms or other nut processors.

### *Channels of Distribution*

Domestic tree nuts are sold either shelled or in-shell. In-shell nuts are bought almost exclusively for home consumption in straight-packs or mixtures, principally during the holiday season in November and December. Shelled nuts are sold to candy manufacturers, the salting trade, bakers, ice cream manufacturers, and manufacturers of nut syrups and paste. Survey data show that the portion of the pecan crop sold on an in-shell basis has increased in the last 10 years, while domestic in-shell sales of walnuts have decreased. The increased sales of in-shell pecans were primarily attributed to larger demand for straight packs or mixed nut packs by supermarkets. Also, to meet rising demand for the mixed snack packs of dried fruit, tree nuts, and chocolate chips, increased numbers of nut processors purchased in-shell pecans to pack their own brands of mixed snack food.

On the other hand, the rising use of walnuts as food ingredients and the popularity of vacuum-packed cans of shelled walnuts have resulted in increased shipments of shelled walnuts to food manufacturers. The percentages of the almond crop sold shelled and in-shell have remained steady, but percentages for the filbert crop have changed somewhat. Also, there have been some shifts in the distribution of tree nuts by outlets during the last 10 years.

*Almonds* -- Over 98 percent of all almond shipments were sold shelled in 1983/84. The almond industry continued to increase sales despite increasing competition. Through aggressive and innovative marketing strategies, almond handlers and processors continued to open up new markets. This has resulted in shifts in the distribution of almonds.

## U.S. Distribution of Almonds 1983/84

In-shell market 1.4%

Mixers 0.5

Exports 0.5

Wholesalers 0.4

Shelled market 98.6%

Exports 56.6

Confectioners 12.2

Retailers 4.8

Mixers & salters 4.7

Ice cream manufacturers 4.4

Cereal manufacturers 3.7

Bakers 3.3

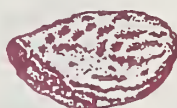
Rack jobbers 2.5

Other food manufacturers 2.1

Wholesalers 1.5

Others\*2.8

\*Includes gift packers, mail orders, and food services.



Domestically, confectioners continue to be the leading users of almonds, with approximately 12 percent of the total shipments. Salters and mixers used about 4.7 percent of the total, and about 6.3 percent was sold for household use through grocery wholesalers and retailers. Ice cream and cereal manufacturers used approximately 4.4 and 3.7 percent of the crop, respectively. With increasing emphasis on nutrition, more food manufacturers will use almonds in health food products—such as yogurts, cheeses, and nutritional bars. In addition, the introduction of the mixed snack packs of dried fruit, tree nuts, and chocolate chips as well as almond butter has also boosted almonds sales. Almond sales to other food manufacturers accounted for 2.1 percent. Exports took about 57 percent of the total almond supply. The export share has increased for many years. West Germany and Japan are our major markets.

The remainder of the almonds, 1.4 percent, was sold in-shell, with grocery wholesalers accounting for 0.4 percent; and mixers and exports accounting for 0.5 percent each.

*Filberts* — A large percent of the filberts were purchased in-shell by grocery wholesalers for sale directly to consumers in straight-packs or mixed nut packages. The peak season for such packages is October, November, and December. This category accounted for 25.5 percent of the crop, followed by exporters, who took 20 percent, mixers and salters, who used 10 percent. The small quantities were sold to bakers and other food manufacturers. During the 1983/84 season, 55.7 percent of the filberts were sold in-shell.

In the 1983/84 season, the primary sales of shelled filberts were to mixers and salters, accounting for 17.6 percent of the total supply. An increasingly important use is for prepared food mixes and snack bars, and this has boosted to 10.5 percent the share of the crop used by other food manufacturers. Sales to households through wholesale and retail groceries accounted for 4.1 percent of the total, and sales to other nut processors accounted for 3.2 percent. Bakers bought 2.3 percent and confectioners, 2.8 percent. The export market took 3.1 percent of the total.

## U.S. Distribution of Filberts 1983/84

In-shell market 55.7%



Shelled market 44.3%



\*Includes rack jobbers, gift packers, and other shellers.

\*\*Includes other retailers, ice cream manufacturers, and mail orders.

**Pecans** — Shelled pecans continue to dominate the pecan market. Almost 82 percent of the pecans that entered commercial channels were shelled. The leading user was the baking industry, accounting for 17.5 percent of the total. Sales to households through grocery wholesalers and retailers accounted for almost 13 percent. Shipments to mail order firms accounted for 8.1 percent. Both confectioners and ice cream manufacturers took 7.8 percent. Nut mixers and salters used 7.7 percent, followed by 5.9 percent to rack jobbers. Other food manufacturers used an additional 4.9 percent of the total, followed by 3 percent to other handlers. Small shares of the market were generated from exports, gift packers, and cereal manufacturers.

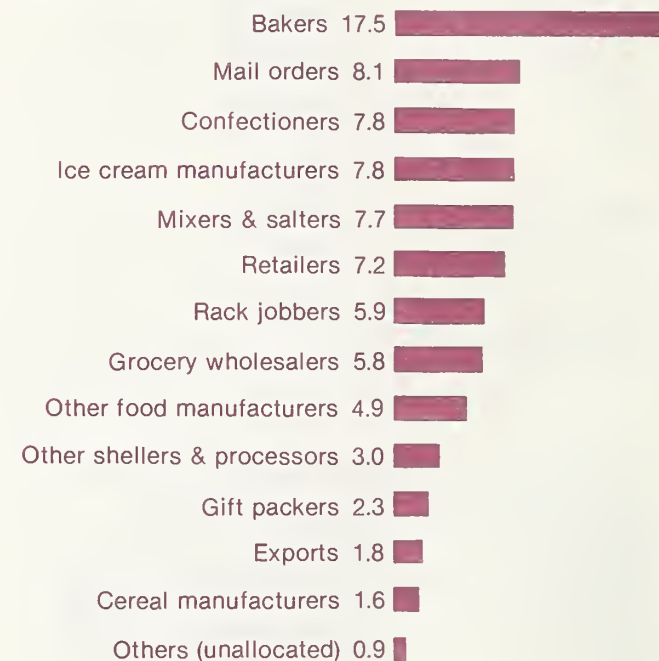
The remaining quantities of pecans sold in-shell. Most of these shipped to processors, accounted for almost 11 percent of total sales. Sales to households through grocery

## U.S. Distribution of Pecans 1983/84

In-shell market 17.7%



Shelled market 82.3%



\*Includes trucker produce trades and discounts.

wholesalers and retailers accounted for almost 3.6 percent of the total supply. Most of the in-shell pecans were packed exclusively into straight-packs and mixtures of nuts for home use. A small quantity was sold to gift packers and mail order houses.

**Pistachios** — Almost 89 percent of the domestic pistachio crop was sold in-shell because it is traditionally sold in the small see-through bags or glass jars. Slightly more than 23 percent of the total crop was sold to mixers and salters, and 26.6 percent was sold for household use through grocery wholesalers and retailers. Sales to other food manufacturers accounted for 14.7 percent. Nearly 11 percent was sold to other shellers

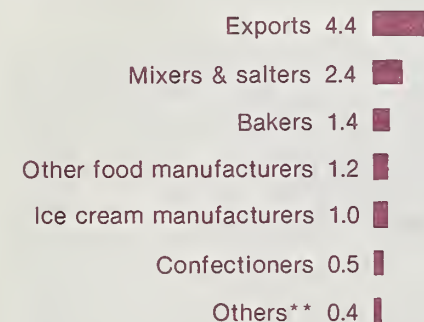
## U.S. Distribution of Pistachios 1983/84



In-shell market 88.7%



Shelled market 11.3%



\*Includes fruit stands, rack jobbers, and mail orders.

\*\*Includes grocery wholesalers, retailers, and other nut handlers.

and processors. Exports accounted for 11 percent of the total. Because the pistachio industry is relatively young, more new products are expected to be introduced by using aggressive marketing strategies. If sales increase, distribution channels will probably shift in the years ahead.

**Walnuts** -- The walnut industry has shifted its focus from the in-shell to the shelled market. Last year, about 65 percent of walnut shipments were sold shelled and 35 percent sold in-shell.

The largest portion of shelled walnuts, 28 percent, was sold unsalted in retail packages to grocery wholesalers and retailers. There has been a rapid growth in the popularity of vacuum-packed cans and see-through packages of shelled walnuts for use in home food preparation. Of the shelled supplies, food manufacturers and bakers accounted for 10.1 and 11.8 percent, respectively. Other users included exporters, 5.1 percent, rack jobbers, 2.9 percent, confectioners, 2.7 percent, ice

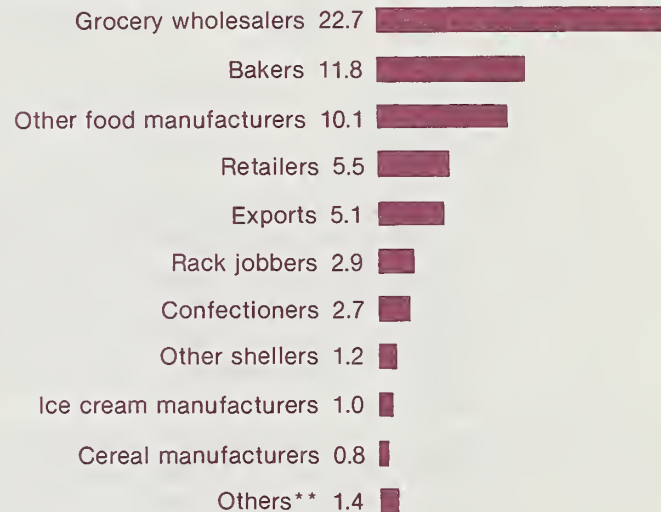
## U.S. Distribution of Walnuts 1983/84



In-shell market 34.8%



Shelled market 65.2%



\*Includes cooperatives.

\*\*Includes mixers and salters and USDA school lunch programs.

cream manufacturers, 1 percent, and cereal manufacturers, 0.8 percent. Sales to other handlers accounted for 1.2 percent.

Nearly all of the in-shell walnuts were sold to grocery wholesalers or exported. A small quantity was sold to retailers and mixers.

### Conclusion

The tree nut industry is expected to continue to grow, but the rate of growth for walnuts will probably be slow. The industry expects that production of filberts and pistachios will increase rapidly in the years ahead, because large plantings in the early 1980's will become bearing trees in the near future. However, almonds, the leading tree nut, will probably show a moderate growth. Pecan production is likely to increase.

Consumption of tree nuts, so called luxury products, will continue to rise with increases in population and disposable personal income.

In addition, the introduction of new products and aggressive marketing and promotion will also enhance tree nut consumption.

The number of marketing firms will probably decrease as small firms consolidate or merge. Increased consumer education concerning the use of tree nuts, improved merchandising, and introduction of new food

products will change the distribution patterns of tree nuts. The almond industry, and to a lesser extent the walnut industry, are notably successful in this area. However, the filbert and pecan industries need to more aggressively seek development of new food products. More pistachios will be used as ingredients for many products. Consequently, more shifts in distribution of pistachios is probably imminent.

## A Profile of the Brazilian Orange Juice Industry

by

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**Abstract:** Brazil has become a major force in world frozen concentrated orange juice (FCOJ) markets in the last decade. Orange acreage and FCOJ production have expanded rapidly due to expanding demand, decreased U.S. production following four serious freezes in Florida, and government programs that provide incentives for the Brazilian FCOJ industry. As a result, Brazil has become Florida's major competitor in the U.S. FCOJ market.

**Key words:** FCOJ, Brazil, orange, demand, supply, prices

### Introduction

Brazil's frozen concentrated orange juice (FCOJ) industry has expanded at a rapid rate since it first entered the export market in 1963. Brazil surpassed the United States as the world's leading orange juice exporter in 1968 (6) and as the largest orange producer in 1982 (table A). Brazil now exports most of its FCOJ to the United States and Western Europe (table B).

While the Brazilian industry has been growing, Florida growers and processors have suffered a series of disastrous freezes that reduced production from a 206-million-box record in 1979/80 to 1984/85's 104 million boxes. Because of the freezes, Brazil's share of the U.S. FCOJ market grew from 12 percent in 1980/81 to over 30 percent in 1983/84. Brazil is no longer a supplementary supplier to the U.S. market, but a major competitor. This article provides a brief profile of Brazil's FCOJ industry.

Table A.--Orange production, 1974/75-1984/85

Market year 1/	Brazil	United States	World
1,000 metric tons			
1974/75	5,169	9,507	25,316
1975/76	5,888	9,744	26,368
1976/77	5,505	9,722	26,286
1977/78	8,158	8,860	27,744
1978/79	8,227	8,502	27,324
1979/80	8,854	10,979	31,375
1980/81	9,180	9,661	30,237
1981/82	9,942	7,025	28,759
1982/83	9,210	8,822	29,454
1983/84	9,492	6,684	28,452
1984/85 2/	10,812	6,272	27,950

1/ Market year refers to harvest and marketing period beginning in the fall and extending through the spring. This corresponds to October-June in the Northern Hemisphere. For the Southern Hemisphere, harvest occurs entirely during the second year shown. 2/ Forecast.

SOURCE: Foreign Agricultural Service, USDA.

1/ The authors are agricultural economists in the Economic Research Service of the USDA.

Table B.--Brazilian frozen concentrated orange juice exports, 1981-84

Destination	1981	1982	1983	1984
	1,000 metric tons 1/			
EC	289	143	187	232
United States	260	298	256	568
Other	90	80	110	105
Total	639	521	553	905

1/ 65 degree Brix.

SOURCE: Foreign Agricultural Service, USDA., and Brazilian Trade Statistics from CACEX.

### Orange Production

The commercial citrus industry in Brazil is concentrated in a 250 by 80 km belt in Sao Paulo State. The estimated number of citrus farms range from 10,000 grove owners (3) to 5,000 commercial farms devoted mainly to citrus (6). The average commercial holding is estimated to be about 17,000 trees. The size of individual holdings varies considerably; many small farms have less than 500 trees while a few large farms have over 500,000. Most citrus growers rely on rainfall for moisture, although irrigation may increase in the future (2). The better orchards regularly obtain yields of 150-200 boxes per acre, compared with average Florida yields of 250-300 boxes.

Total orange area in Sao Paulo, 471,500 hectares in 1983, is up more than 70 percent in last decade (table C). However, future growth in orange production will probably come less from increased acreage and more from improved orchard practices and irrigation.

Table C.--Orange area, Sao Paulo State, 1975-83

Year	Hectares
1975	272,440
1976	282,330
1977	286,405
1978	326,340
1979	331,176
1980	427,450
1981	431,058
1982	440,850
1983	471,500

SOURCE: Statistical Annual of Brazil - Various Issues.

Table D.--Orange prices, Average grower prices 1975/76-1984/85

Market year 1/	Brazil	Florida 2/
	Dollars per box	
1975/76	0.85	1.77
1976/77	2.00	2.17
1977/78	1.72	4.14
1978/79	1.70	4.66
1979/80	1.65	3.72
1980/81	2.12	4.04
1981/82	1.27	4.28
1982/83	0.97	5.15
1983/84	2.10	4.96

1/ Market year refers to harvest and marketing period beginning in the fall and extending through the spring. This corresponds to October-June in the Northern Hemisphere. For the Southern Hemisphere, harvest occurs entirely during the second year shown. 2/ On-tree returns equivalent for all uses.

SOURCES: Foreign Agricultural Service, USDA., and Statistical Reporting Service, USDA.

Between 1975 and 1985, Brazil's orange production increased at an average annual rate of 8.5 percent. Brazil's 1985 orange crop--currently being harvested--is expected to reach a record 10.8 million metric tons. Attractive grower prices in recent years and the expectation of good markets for the next decade, while Florida's orange industry recovers from disastrous freezes stimulated the expansion in Brazil's orange industry (table D)(1).

### Processing

Brazil's processing operations are large, modern, and highly efficient. In 1985, USDA's Foreign Agricultural Service estimated that 28 processing plants had a total of 833 extractors and an evaporation capacity of over 3.6 million pounds of water per hour (5). These plants have the equipment to process 270 million boxes of oranges, a 30-percent increase in processing capacity since 1982. The machinery (including juice extractors, evaporators, dryers, centrifuges, and waste heat evaporators) is fully automated and comparable to plants in the United States. During the peak season, plants operate 24 hours a day. Processors continue to install tank farms for concentrate storage to reduce handling costs, improve juice consistency, and facilitate the bulk transfer of FCOJ.

Byproducts of FCOJ production in Brazil include citrus pulp pellets (mostly exported to Western Europe), essential oils (from orange peel), essence oils (from water vapor during the concentration process), and D-limonene or stripper oil (used as food flavorings, solvents in soaps and perfumes, and in the manufacture of rubber, plastics, and textiles).

Until the early 1980's, all of the FCOJ for export was packaged in 52-gallon steel drums doubled-lined with polyethylene bags. Trucks typically hauled 80 drums to cold storage facilities in the Port of Santos. However, the industry is now changing to bulk shipment. For example, major exporters make bulk shipments to both Western Europe and the United States. Fiberglass lined stainless steel tanks holding 20-22 tons of frozen slush juice are transported to Santos. The juice is then stored in 100,000-gallon cold-storage tanks and discharged directly into vessels adapted for bulk transport. Importers use a similar process, in reverse. Bulk handling saves an estimated \$80-\$100 per metric ton of concentrate. These cost savings result from eliminating drums (about \$14 each) and the double-polyester liners (\$1.50 each), and lower fuel costs. Bulk handling also improves product quality by reducing contamination and losses from heat.

U.S. FCOJ imports have increased, bulk shipments have become more common, and ports of entry are changing. Before 1982-83, most FCOJ imports entered Florida. However, the proportion of Brazilian FCOJ moving to ports in the Northeast is increasing because of the advantages in transport cost and the growth in demand for chilled juice that can be easily processed from bulk FCOJ in existing dairy plants.

Brazil is a low-cost producer of FCOJ. Although no complete studies comparing Florida's and Brazil's costs are published, some industry analysts believe that Brazil has a substantial production cost advantage over Florida (1). During the 1984/85 season the estimated cost of production of FCOJ at Santos, Brazil, with export duties paid is \$960 per metric ton (table E). Brazilian FCOJ was selling for about double that cost, delivered in the United States (5).

Table E.—Brazilian orange juice: Estimated harvesting and processing cost, 1984 season

Items	Cost
	Dollars per lb. of solids
Fruit 1/	0.36
Picking and hauling	0.09
Processing (including drums) 2/	0.17
Export tax	<u>0.05</u>
Total cost per lb solids	.67
Total cost per metric ton, 65 degree Brix	960.11

1/ Two dollars per box, on-tree; yield 3.9 kg., 65 degrees Brix per box.

2/ Includes cost of transportation to Santos, excludes allowance for byproducts.

SOURCE: (1)

### Government Policy

The Brazilian government assists and regulates the orange juice industry by setting minimum export prices, establishing export quotas, coordinating and policing industry and grower price agreements, and supporting research and extension programs. In the past government assistance has included subsidized credit and tax exemptions. However, government policy has been adjusted frequently because of changes in the world market caused by freezes in Florida. Lucrative prices, combined with government austerity, have eliminated many subsidies or tax exemptions previously granted to the FCOJ industry. Credit programs that assisted the expansion of orange groves or processing facilities several years ago, increased the competitiveness of the Brazilian industry by greatly reducing its debt burdens.

### Minimum Export Price

The Foreign Trade Department of the Bank of Brazil (CACEX) establishes a minimum export price for FCOJ. Exports must be registered with CACEX. As of July 1, 1985, the minimum price was lowered from \$1,800 per metric ton of 65 degrees Brix to \$1,400, more in line with world market prices. The minimum price ensures that companies exporting FCOJ will return foreign exchange to Brazil.

### *Producer or "Reference" Price*

Minimum prices are agreed upon annually between producers and processors (3). The government overseer of this negotiation is CACEX, which also monitors export prices. Payments to producers are policed by CACEX, which requires receipts for orange payments to producers before FCOJ export licenses are granted. To obtain higher prices for fruit, growers have begun to form citrus selling cooperatives, and because of their success this activity is expected to continue. Fruit purchasing contracts are made using estimates of the number of boxes in each grove before weighing the fruit at the processing plant. A partial payment is often made when the contract is agreed on, and a final payment is made after the fruit is processed. To adjust for high quality fruit which yields more pounds of solids per box, estimates of the number of boxes are adjusted upward (3). There is no differential based on location of growers (6).

### *Export Quotas*

During years when supplies are short relative to demand—as they were following Florida's freezes in 1981, 1983, and 1985—Brazil does not establish export quotas. However, during periods of excess supply CACEX has established export quotas to maintain world market prices. At the beginning of the 1980/81 season, processors were limited to exporting 50-percent of their output to maintain a minimum export price of \$900 per metric ton. However, following Florida's January 1981 freeze, the export limit was lifted. For the 1982/83 season, there was a quota of 400,000 metric tons to help maintain a minimum export price of \$1,100 per metric ton. However, exports to new markets or exports of single strength juice did not count against the quota.

### *Research and Extension Programs*

The Federal and Sao Paulo State governments have research and extension programs to improve citrus cultivation, fruit quality, and productivity. These programs include genetic and cultural research at the Sao Paulo Campinas Agronomic Institute, disease and insect control research at the Sao Paulo Biological Institute, and other citrus research at the National Fruit and Manioc

Research Center. Sao Paulo State operates agricultural extension centers in each of its municipalities to extend this research to producers.

The most extensive research and extension program is the combined Federal-State National Campaign for The Eradication of Citrus Canker (CANECC), which has been in operation since 1957. The program's budget was \$25 million in 1980, and over 23 years the program uprooted 1.7 million trees, mostly in southwest Sao Paulo. Processors and growers provide part of the funding for CANECC with a small surcharge, about 1.4 cents per box of oranges in 1980.

### *Credit Programs and Tax Exemptions*

High world FCOJ prices—caused by Florida freezes, government austerity, and exchange rate changes favorable to exporters—have all been used as reasons for increased taxes on FCOJ. Tax exemptions are no longer an important incentive to FCOJ production in Brazil. However, if Brazil had to increase its competitiveness, the government has shown itself flexible, taxing less when profits are low.

The Brazilian government has restructured credit programs and a countervailing duty is now placed on exports to the U.S. to offset subsidized credit to FCOJ processors. Past subsidies included grower financing and credit, stock financing, highly subsidized credit for processing facility investments, and tax rebate on exports. The reduced cost of establishing and expanding groves and factories 5 to 10 years ago probably increases the current profitability of FCOJ production, and helped make Brazil a major force in world FCOJ markets.

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Table 10.--Wine: Inventories in California, other States, and United States 1/

Area and type of wine	February 28		
	1985 3/	1984 4/	1983 4/
1,000 gallons			
California:			
Table	480,417	505,344	549,915
Dessert	42,877	42,337	53,101
Other	22,189	20,408	18,381
Total	545,483	568,089	621,397
Other States:			
Table	36,332	37,486	34,849
Dessert	7,906	8,862	8,383
Other	4,999	4,554	3,981
Total	49,237	50,902	47,213
United States 2/:			
Table	516,749	542,830	584,764
Dessert	50,783	51,198	61,484
Other	27,188	24,963	22,362
Total	594,720	618,991	668,610

1/ Inventories in bonded wineries and wine cellars. Excludes substandard wine produced as distilling material. 2/ Sum of components is not equal to total in all cases as a result of rounding individual figures. 3/ Preliminary. 4/ Sum of figures for California and Other States may not equal U.S. totals because U.S. totals are revised figures, which are not available for individual States.

SOURCE: Wine Institute's Economic Research Department from reports of the Bureau of Alcohol, Tobacco, and Firearms.

Table 11.--Strawberries: Acreage, yield per acre, and production for major States, 1983, 1984, and indicated 1985 1/

Crop and State	Acreage			Yield per acre			Production		
	1983	1984	1985	1983	1984	1985	1983	1984	1985
	1,000 acres			1,000 pounds			Million pounds		
Early:									
Florida	5.4	5.1	5.3	19.0	17.0	20.0	102.6	86.7	106.0
Late:									
California	12.0	13.3	14.6	52.0	56.5	54.0	624.0	751.5	788.4
Louisiana	.6	.6	.6	7.0	6.2	5.5	4.2	3.7	3.0
Michigan	2.7	2.7	2.5	6.0	7.0	7.5	16.2	18.9	18.8
New Jersey	1.0	1.1	1.1	5.0	5.0	5.5	5.0	5.0	6.1
Oregon	6.9	6.6	6.6	11.5	9.2	8.3	79.4	60.7	54.8
Washington	3.1	3.0	3.1	6.2	7.0	7.1	19.2	21.0	22.0
Group total	26.3	27.2	28.5	28.4	31.6	31.4	748.0	860.8	893.1
Major State total	31.7	32.3	33.8	26.8	29.3	29.6	850.6	947.5	999.1

1/ Includes fresh market and processing.

SOURCE: Vegetables, SRS, USDA.

Table 12.--Wine entering U.S. distribution channels by origin and type 1/

Origin and type of wine	January-February			Calendar year		
	1985 2/	1984	1983	1984 2/	1983	1982
1,000 gallons						
U.S. produced: 3/						
Table	21,120	22,158	21,219	286,165	289,938	292,216
Dessert	3,268	2,861	2,799	33,900	34,686	37,024
Other	5,526	3,654	3,417	90,613	72,446	62,716
Total	29,914	28,673	27,435	410,678	397,070	391,956
Imported: 4/						
Table	6,801	7,132	7,208	118,722	111,392	105,093
Dessert	257	395	162	3,607	3,393	3,193
Other	1,288	1,206	912	20,082	16,221	13,803
Total	8,346	8,733	8,282	142,411	131,006	122,089
All wine:						
Table	27,920	29,289	28,428	404,887	401,330	397,309
Dessert	3,525	3,256	2,961	37,507	38,079	40,217
Other	6,814	4,860	4,328	110,695	88,667	76,516
Total	38,259	37,405	35,717	553,089	528,076	514,045

1/ Due to rounding, totals may not equal sum of components. 2/ Preliminary. 3/ Includes taxable withdrawals only. 4/ Imports for consumption.

SOURCE: Wine Institute's Economic Research Department from reports of the Bureau of Alcohol, Tobacco, and Firearms.

Table 13.—Canned noncitrus fruit: Cannery stocks, packs, supplies, and shipments, 1982/83-1984/85

Item and season 1/	Carryin	Pack	Total supply	Season shipments	June 1 stocks
1,000 equivalent cases 24 No. 2-1/2's					
Total					
1982/83	19,937	36,384	56,331	45,388	12,943
1983/84	12,943	28,625	41,568	36,531	5,037
1984/85	5,037	39,382	44,419	35,596	8,823
Apricots 2/:					
1982/83	259	1,626	1,885	1,666	219
1983/84	219	1,167	1,386	1,263	123
1984/85	123	1,861	1,984	1,440	544
Fruit cocktail 2/:					
1982/83	5,242	8,722	13,964	11,016	2,948
1983/84	2,948	8,223	11,171	9,272	1,899
1984/85	1,899	8,671	10,570	8,830	1,740
Fruits for salad & mixed 2/:					
1982/83	1,379	2,401	3,780	2,904	876
1983/84	876	1,335	2,211	1,899	312
1984/85	312	2,506	2,818	2,115	703
Peaches, clingstone 2/:					
1982/83	7,865	17,846	25,711	20,138	5,573
1983/84	5,573	10,686	16,259	15,119	1,140
1984/85	1,140	18,687	19,827	15,636	4,191
Pears:					
1982/83	5,202	7,789	12,991	9,664	3,327
1983/84	3,327	7,214	10,541	8,978	1,563
1984/85	1,563	7,657	9,220	7,575	1,645

1/Season begins June 1. 2/ California only.

SOURCE: California League of Food Processors and National Food Processors Association.

Table 14--Canned cherries and purple plums: Cannery's stocks, packs, supplies, and shipments, 1982/83-1984/85

Item and season 1/	Carryin	Pack	Total supply	Shipments to April 1	Stocks, from April 1	Shipments from April 1	Total season shipments
1,000 equivalent cases 24 No. 2-1/2's							
Total							
1982/83	748	1,348	2,096	1,405	691	251	1,655
1983/84	441	1,154	1,595	1,100	495	193	1,292
1984/85	302	1,323	1,625	1,033	592		
Cherries, RSP:							
1982/83	13	471	484	396	88	47	442
1983/84	42	189	231	207	24	17	224
1984/85	7	389	396	259	137		
Cherries, sweet:							
1982/83	108	498	606	376	230	62	438
1983/84	168	522	690	403	287	87	489
1984/85	200	357	557	359	198		
Purple plums, U.S.:							
1982/83	627	379	1,006	633	373	142	775
1983/84	231	443	674	490	184	89	579
1984/85	95	577	672	415	257		

1/ Season beginning July 1 for RSP cherries and June 1 for all other items.

SOURCE: National Food Processors Association.

Table 15--Canned fruit: Commercial pack of principal items by size of container, United States, 1982/83-1984/85 (Basis equivalent cases of 24 No. 2-1/2 cans)

Item and season 1/	Retail size 2/		Institutional size No. 10		Total pack	Item and season 1/	Retail size 2/		Institutional size No. 10		Total pack
	Quantity	Percent of pack	Quantity	Percent of pack			Quantity	Percent of pack	Quantity	Percent of pack	
	1,000 cases	Percent	1,000 cases	Percent	1,000 cases		1,000 cases	Percent	1,000 cases	Percent	1,000 cases
Apples:						Fruit cocktail 4/:					
1982/83	351	22.1	1,235	77.9	1,586	1982/83	6,604	75.7	2,118	24.3	8,722
1983/84 3/	364	23.6	1,178	76.4	1,542	1983/84	6,217	75.6	2,006	24.4	8,223
1984/85	N.A.	N.A.	N.A.	N.A.	N.A.	1984/85	6,476	74.7	2,195	25.3	8,671
Applesauce:						Fruit for salad and mixed 4/:					
1982/83	7,934	73.0	2,941	27.0	10,875	1982/83	1,409	58.7	992	41.3	2,401
1983/84 3/	6,388	66.0	3,295	34.0	9,683	1983/84	780	58.4	555	41.6	1,335
1984/85	N.A.	N.A.	N.A.	N.A.	N.A.	1984/85	1,549	61.8	957	38.2	2,506
Apricots: 4/						Peaches, clingstone 4/:					
1982/83	953	58.6	673	41.4	1,626	1982/83	11,965	67.1	5,878	32.9	17,843
1983/84	692	59.3	475	40.7	1,167	1983/84	7,057	66.0	3,629	34.0	10,686
1984/85	N.A.	N.A.	N.A.	N.A.	1,861	1984/85	12,125	64.9	6,562	35.1	18,687
Cherries, RSP:						Pears					
1982/83	190	40.3	281	59.7	471	1982/83	4,166	53.5	3,623	46.5	7,789
1983/84	137	72.5	52	27.5	189	1983/84	4,241	58.8	2,973	41.2	7,214
1984/85	230	59.1	159	40.9	389	1984/85	4,531	59.2	3,126	40.8	7,657
Cherries, sweet						Purple plums, U.S.:					
1982/83	269	54.0	229	46.0	498	1982/83	443	47.1	497	52.9	940
1983/84	362	69.3	160	30.7	522	1983/84	191	50.4	188	49.6	379
1984/85	233	65.3	124	34.7	357	1984/85	196	44.2	247	55.8	443

1/ Season beginning for apples and applesauce August 1; July 1 for RSP cherries; and June 1 for all other items.

2/ May include some institutional sizes reported as miscellaneous. 3/ 1983/84 for apples and applesauce pack to April 1. 4/ California only.

NA = Not available.

SOURCES: National Food Processors Association and California League of Food Processors.

Table 16.--Frozen fruit: Packers' carryin, pack, imports, supplies, apparent disappearance, and stocks of selected items, United States, 1982/83-1984/85

Item and season 1/	Carryin	Pack	Imports	Total supply	Disappear- ance to Mar. 31	Stocks Mar. 31	Total season disappearance
Million pounds							
Total							
1982/83	183.7	717.6	45.2	946.5	654.4	292.1	736.6
1983/84	209.9	643.1	62.7	915.7	563.8	351.9	666.8
1984/85	248.9	661.5	82.2	992.6	630.5	362.1	
Apples:							
1982/83	30.6	100.4	--	131.0	63.7	67.3	94.1
1983/84	36.9	75.6	--	112.5	31.1	81.4	81.3
1984/85	31.2	78.0	--	109.2	45.6	63.6	
Apricots:							
1982/83	3.5	16.8	--	20.3	14.4	5.9	16.7
1983/84	3.6	14.1	--	17.7	12.5	5.2	13.9
1984/85	3.8	16.7	--	20.5	14.1	6.4	
Cherries:							
1982/83	28.5	176.4	--	204.9	161.6	43.3	183.1
1983/84	21.8	122.8	--	144.6	108.8	35.8	127.0
1984/85	17.6	179.9	--	197.5	129.4	68.1	
Peaches:							
1982/83	24.9	56.7	--	81.6	46.3	35.3	59.3
1983/84	22.3	56.5	--	78.8	51.7	27.1	65.1
1984/85	13.7	75.9	--	89.6	50.0	39.6	
Strawberries:							
1982/83	69.8	272.7	35.5	378.0	286.6	91.4	291.1
1983/84	86.9	292.6	44.6	424.1	286.5	137.6	290.9
1984/85	133.2	231.4	61.4	426.0	306.5	119.5	
Blackberries:							
1982/83	12.5	16.3	--	28.8	18.3	10.5	20.7
1983/84	8.1	14.6	--	22.7	15.6	7.1	18.1
1984/85	4.6	11.1	--	15.7	7.3	8.4	
Blueberries:							
1982/83	5.9	46.5	6.0	58.4	39.1	19.3	49.1
1983/84	9.3	43.5	11.2	64.0	21.0	43.0	30.2
1984/85	33.8	45.4	2/15.0	94.2	59.1	35.1	
Boysenberries:							
1982/83	3.1	5.1	2.5	10.7	7.8	2.9	8.5
1983/84	2.2	3.5	2.7	8.4	7.3	1.1	7.4
1984/85	1.0	3.5	2.8	7.3	5.2	2.1	
Raspberries:							
1982/83	4.9	26.7	1.2	32.8	16.6	16.2	14.0
1983/84	18.8	19.9	4.2	42.9	29.3	13.6	32.9
1984/85	10.0	19.6	2/3.0	32.6	13.3	19.3	

1/ Season beginning May 1 for strawberries, June 1 for apricots and boysenberries, October 1 for apples and July 1 for all other items. 2/ Estimated.

SOURCE: Pack data from American Frozen Food Institute; stocks, Statistical Reporting Service USDA; imports, Bureau of Census, U.S. Department of Commerce.

Table 17.--U.S. wholesale price indexes of selected dried and frozen fruit items, by months, 1983-85

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1967=100												
Dried fruit:												
Prunes (24-1 lb. pkg.):												
1983	N.P.	281.7	281.7	281.7	N.P.	281.7	N.P.	281.7	N.P.	281.7	N.P.	281.7
1984	281.7	281.7	284.1	284.1	284.1	284.1	284.1	284.1	288.0	N.P.	288.0	292.7
1985	292.7	283.2	283.2	283.2	290.1	290.1	290.1					
Raisins (24-15 oz. pkg.):												
1983	N.P.	450.6	449.8	449.7	N.P.	450.6	N.P.	449.8	N.P.	429.2	N.P.	428.5
1984	425.2	425.7	423.6	423.6	411.5	411.5	411.5	306.7	307.5	307.5	308.3	321.1
1985	313.9	314.1	314.1	N.P.	321.7	N.P.	N.P.					
Frozen juice:												
Orange, conc. (12-6 oz. cans):												
1983	304.0	300.8	299.6	299.1	302.3	300.7	301.0	300.8	302.4	302.5	303.8	303.8
1984	314.9	356.5	369.5	380.7	385.1	395.0	386.7	387.8	396.2	406.6	403.7	407.8
1985	400.8	418.0	419.0	419.5	421.1	416.9	414.1					

N.P. = Not published.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

Table 18.--Fresh fruit: Retail price, marketing margin, and grower-packer return per pound, sold in Baltimore, indicated months, 1984 and 1985

Commodity and season	Retail price 1/	Marketing margin		Grower-packer return 2/3/ (f.o.b. shipping point price)	
		Absolute	Percent of retail price	Absolute	Percent of retail price
	Cents			Cents	
Apples, Eastern Delicious:					
April 1984	43.0	27.1	63	15.9	37
April 1985 4/	43.0	21.7	50	21.3	50
March 1985 4/	44.7	23.3	52	21.3	48
Apples, Washington, Red Delicious:					
May 1984	69.0	43.0	62	26.0	38
May 1985	65.0	29.3	45	35.8	55
April 1984	65.0	30.3	47	34.7	53
Grapefruit:					
April 1984	31.1	24.2	78	6.8	22
April 1985	32.9	25.1	76	7.8	24
March 1985	32.9	25.0	76	7.9	24
Lemons, Western:					
May 1984	69.9	-130.9	-187	200.8	287
May 1985	83.2	-147.1	-177	230.3	277
April 1985	89.6	-110.3	-123	199.9	223
Oranges, California Navel:					
May 1984	42.8	29.9	70	12.8	30
May 1985	52.5	29.9	57	22.7	43
April 1985	48.6	32.7	67	15.9	33
Oranges, Florida:					
May 1984	42.6	10.0	24	32.5	76
May 1985	48.4	14.9	31	33.6	69
April 1985	52.3	19.0	36	33.4	64

1/ Retail price from Maryland State Department of Agriculture. 2/ Production areas: Eastern Delicious Apples-New York State; Grapefruit-Florida; and Western Lemons-California. 3/ Adjusted to account for waste and spoilage during marketing. 4/ Appalachia.

Table 19.—Fresh fruit: Representative truck rates for selected fruits, January–June, 1984–85 1/

Commodity, area, and city	1984						1985					
	Jan.	Feb.	Mar.	Apr.	May	June	Jan.	Feb.	Mar.	Apr.	May	June
Dollars per package												
Apples (Tray packed carton)												
Yakima, Washington area to 3/:												
Atlanta	2.73	2.88	2.93	2.93	2.93	2.93	2.80	2.80	2.78	2.85	2.85	2.85
Chicago	2.08	2.13	2.08	2.05	2.05	2.05	2.15	2.10	2.05	2.10	2.10	2.10
Dallas	2.28	2.58	2.38	2.38	2.30	2.30	2.15	2.25	2.25	2.33	2.33	2.33
Denver	1.45	2.50	—	—	1.48	1.48	1.50	1.50	1.45	1.45	1.45	—
Los Angeles	1.33	1.35	1.35	1.35	1.35	1.35	1.40	1.40	1.40	1.40	1.40	1.40
New York City	3.20	3.25	3.10	3.18	3.18	3.18	3.20	3.20	3.20	3.20	3.20	3.20
Hudson Valley												
New York area to 3/:												
Atlanta	1.13	—	—	—	—	—	—	—	—	—	—	—
New York City	.53	.55	.55	.55	—	—	.53	.53	.53	.53	.53	—
Martinsburg, West Virginia												
area to 3/:												
Atlanta	.95	.78	.88	.95	—	—	.93	.93	.93	.93	—	—
New York City	.85	.93	.73	.75	—	—	.83	.83	.83	.78	—	—
Grapefruit (4/5 bu. ctn.)												
Lakeland, Florida area to 3/:												
Atlanta	2/.53	.50	.55	.55	.58	—	.58	.53	.53	.55	.63	—
Chicago	2/1.18	1.17	1.20	1.28	1.35	—	1.28	1.20	1.20	1.30	1.55	—
New York City	2/1.18	1.17	1.20	1.28	1.38	—	1.28	1.20	1.20	1.30	1.58	—
Grapes (23 lb. lug)												
Fresno area to 3/:												
Atlanta	1.32	1.38	1.26	—	—	—	1.26	1.41	1.44	1.41	1.53	1.65
Chicago	1.15	1.18	1.12	—	—	—	1.06	1.06	1.06	1.12	1.24	1.59
Dallas	.97	1.00	.94	—	—	—	.94	1.00	1.00	1.03	1.06	1.15
New York City	1.56	1.62	1.53	—	—	—	1.56	1.59	1.65	1.65	1.71	2.18
Citrus (7/10 bu. ctn.)												
Southern California area to:												
Atlanta	2.45	2.10	2.05	2.05	2.20	2.75	1.95	2.10	2.00	1.95	2.05	2.65
Chicago	1.95	1.95	1.80	1.90	2.00	2.45	1.95	2.00	2.00	1.85	1.95	2.20
Dallas	1.55	1.45	1.50	1.55	1.65	1.90	1.35	1.55	1.63	1.60	1.60	1.69
Denver	1.30	1.10	1.10	1.10	1.30	1.90	1.25	1.15	1.15	1.15	1.20	1.25
New York City	3.15	3.15	2.80	2.95	3.00	4.05	2.55	2.80	2.85	2.80	2.90	3.50
Oranges (4/5 bu. ctn.)												
Lakeland, Florida area to 3/:												
Atlanta	2/.55	.53	.32	.55	.65	—	.57	2/.58	.58	.60	.68	.65
Chicago	2/1.18	1.20	.67	1.30	1.37	—	1.28	2/1.23	1.23	1.33	1.60	1.55
New York City	2/1.18	1.20	.70	1.27	1.44	—	1.28	2/1.23	1.23	1.33	1.65	1.55

1/ Reported from a sample of shippers and/or truck brokers in specified areas for shipments during the first week of each month. 2/ Due to an embargo, truck rates are for shipments during the second week of the month. 3/ 1984 data revised to reflect the increase in vehicle size.

SOURCE: Fruit and Vegetable Truck Rate Report.

Table 20.--U.S. monthly average price indexes for fruits, selected months, 1984-1985

Item	1984						1985						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July
(1967=100)													
Wholesale price index:													
Fresh fruit	251.1	268.0	301.5	272.5	261.0	270.1	256.2	285.7	248.7	258.1	244.3	242.1	239.2
Citrus fruit	240.0	248.4	248.3	279.1	210.7	207.5	205.6	229.7	207.8	211.0	231.3	225.2	228.7
Other fruit	254.4	275.0	323.8	267.5	282.2	296.9	277.7	309.3	265.6	277.8	248.4	248.1	242.3
Dried fruit	405.3	357.3	360.5	351.1	353.2	361.9	359.0	355.8	355.8	356.2	362.2	362.2	362.2
Canned fruit and juice	315.5	315.4	311.1	316.8	314.0	316.1	319.8	323.3	326.1	325.5	325.1	326.8	328.1
Canned fruit	271.1	270.3	264.0	273.1	269.1	272.0	276.7	275.9	280.4	279.4	278.5	281.3	282.6
Canned fruit juice	385.5	386.8	385.6	385.8	385.0	385.7	387.8	398.3	398.4	398.4	398.7	398.7	400.0
Frozen fruit and juice	353.3	352.8	358.0	365.7	363.5	365.9	361.5	372.9	373.1	373.3	374.4	371.5	369.9
Consumer price index:													
Fresh fruit	346.9	353.3	364.8	354.3	343.9	331.6	341.5	362.6	362.9	367.2	381.9	380.8	370.0
(1977=100)													
Index of fruit prices received by growers 1/	223	245	243	287	240	203	197	188	175	172	180	185	182

1/ Index for fresh and processed.

SOURCES: Bureau of Labor Statistics, U.S. Department of Labor, and Agricultural Prices, SRS, USDA.

Table 21.--Chilled citrus juices: Florida canners' stocks, packs, supplies, and movement, 1981/82-1984/85

Item and season	Carryin	Pack		Supply		Movement		Stocks 1/
		To date 1/	Total season	To date 1/	Total season	To date 1/	Total season	
1,000 gallons								
Chilled juice 2/:								
Orange:								
1981/82	15,935	143,020	181,000	158,955	196,935	127,408	182,279	31,547
1982/83	14,656	141,284	185,150	155,940	199,806	118,068	182,287	37,872
1983/84	17,519	205,232	273,827	222,751	291,346	184,823	264,995	37,928
1984/85	26,351	187,378		213,729		168,062		45,667
Grapefruit:								
1981/82	2,482	15,801	22,943	18,283	25,425	15,816	23,224	2,467
1982/83	2,201	13,472	20,336	15,673	22,537	13,852	21,177	1,821
1983/84	1,360	18,497	27,642	19,857	29,002	17,806	27,336	2,050
1984/85	1,666	22,046		23,712		21,972		1,740

1/ For 1984/85 season, week ending June 8; 1983/84 season, week ending June 9; 1982/83 season, week ending June 11; 1981/82 season, week ending June 12. These respective dates include data through the 36th week of each season. 2/ Pack data are from fresh fruit and frozen concentrated juices, but exclude reprocessed single strength.

SOURCE: Florida Citrus Processors Association.

Table 22.--Canned citrus juices: Florida canners' packs, supplies,  
and movement, 1981/82-1984/85

Item and season	Carryin	Pack		Supply		Movement		Stocks 1/
		To date 1/	Total season	To date 1/	Total season	To date 1/	Total season	
1,000 cases, 24 No. 2's								
Orange: 2/								
1981/82	2,494	9,923	11,503	12,417	13,997	7,994	11,593	4,423
1982/83	2,404	7,752	9,802	10,156	12,206	7,387	10,792	2,769
1983/84	1,414	7,331	9,084	8,745	10,498	6,728	9,311	2,017
1984/85	1,187	5,929		7,116		5,575		1,541
Grapefruit: 3/								
1981/82	3,308	14,243	15,725	17,551	19,033	9,941	14,767	7,610
1982/83	4,266	9,451	11,651	13,717	15,917	9,295	13,495	4,422
1983/84	2,422	7,649	9,513	10,071	11,935	7,321	10,231	2,750
1984/85	1,704	8,930		10,634		7,887		2,747
Blend:								
1981/82	339	688	727	1,027	1,066	637	865	390
1982/83	201	601	650	802	851	474	702	328
1983/84	150	470	555	620	705	426	606	195
1984/85	100	556		656		426		230
Tangerine:								
1981/82	4	6	6	10	10	6	9	4
1982/83	1	4	4	5	5	4	4	1
1983/84	1	--	--	1	1	1	1	--
1984/85	--	1		1		1		--

1/ For 1984/85 season, week ending June 8; 1983/84 season, week ending June 9; 1982/83 season, week ending June 11; 1981/82 season, week ending June 12. These respective dates include data through the 36th week of each season. 2/ Includes reconstituted orange juice. 3/ Includes reconstituted grapefruit juice.

SOURCE Florida Citrus Processors Association.

Table 23.--U.S exports of selected fresh noncitrus fruits,  
by destination, 1982/83-1984/85

Item and season 1/	Canada	Europe		Latin America	Taiwan	Hong Kong	Other	Total
		EC 2/	Total					
Metric tons								
Apples:								
1982/83	42,670	11,909	24,596	37,364	62,748	27,185	78,735	273,298
1983/84	38,855	14,821	26,242	12,449	37,838	23,500	83,476	222,360
1984/85	30,861	8,943	18,109	11,195	35,642	29,720	83,833	209,360
Grapes:								
1982/83	77,895	590	1,497	3,656	--	10,241	15,844	109,133
1983/84	89,806	428	918	2,986	--	6,560	11,121	111,391
1984/85	80,784	359	641	3,733	--	8,844	12,271	106,273
Pears:								
1982/83	15,695	172	4,261	7,895	--	95	7,911	35,857
1983/84	17,843	1,380	4,810	2,685	--	135	8,861	34,334
1984/85	14,300	201	2,323	3,151	--	--	7,406	27,180

1/ Season beginning July 1 for apples and pears; June 1 for grapes. 2/ Belgium-Luxembourg, France, West Germany, Italy, Netherlands, Greece, United Kingdom, Denmark, and Ireland.

SOURCE: Foreign Agricultural Service, USDA.

Table 24.--U.S exports of selected canned noncitrus fruits, by destination, 1982/83-1984/85

Item and season 1/	Canada	Europe		Latin America	Japan	Other	Total
		EC 2/	Total				
Metric tons							
Peaches:							
1982/83	11,692	6,521	8,230	2,074	9,586	4,390	35,972
1983/84	5,621	937	1,486	750	4,550	3,489	15,896
1984/85	4,910	152	702	781	2,318	2,720	11,431
Fruit cocktail:							
1982/83	12,560	5,417	9,586	1,614	3,328	11,499	38,587
1983/84	6,608	926	2,001	1,210	2,286	10,792	22,897
1984/85	7,853	334	1,805	1,624	2,125	7,707	21,114
Pineapple:							
1982/83	8,154	1,336	1,535	192	379	530	10,790
1983/84	7,469	3,442	4,455	152	971	609	13,656
1984/85	6,014	1,570	1,954	74	--	1,391	9,433
Cherries 3/:							
1982/83	742	1,704	1,771	142	695	464	3,814
1983/84	620	80	99	25	731	632	2,107
1984/85	240	45	53	27	653	1,015	1,988
Apricots:							
1982/83	282	45	72	459	78	377	1,268
1983/84	42	19	29	16	53	174	314
1984/85	39	71	151	48	33	238	509
Pears:							
1982/83	428	176	345	191	85	1,292	2,341
1983/84	305	99	160	94	55	651	1,265
1984/85	50	74	130	137	43	766	1,126

1/ Season beginning July 1 for cherries; June 1 for other canned items. 2/ Belgium-Luxembourg, France, West Germany, Italy, Netherlands, Greece, United Kingdom, Denmark, and Ireland. 3/ Excludes Maraschino cherries.

SOURCE: Foreign Agricultural Service, USDA.

Table 25.--Frozen concentrated citrus juices: Florida canners' stocks, packs, supplies, and movement, 1982/83-1984/85

Item and season	Carryin	Pack		Supply		Movement		Stocks 1/
		To date 1/	Total season	To date 1/	Total season	To date 1/	Total season	
1,000 gallons 2/								
Orange:								
1982/83 3/	53,379	203,836	228,423	257,215	281,802	152,263	238,978	104,950
1983/84	42,824	185,692	239,907	228,516	282,731	154,535	228,332	73,984
1984/85	54,420	185,439		239,859		145,096		94,762
Grapefruit:								
1982/83 3/	11,406	14,578	15,071	25,984	26,477	13,602	21,028	12,381
1983/84	5,449	19,987	20,242	25,436	25,691	14,048	21,652	11,389
1984/85	4,036	24,925		28,961		18,133		10,828
Tangerine:								
1982/83 3/	393	457	505	850	898	692	791	158
1983/84	107	880	880	987	987	618	683	369
1984/85	304	559		863		351		512

1/ For the 1984/85 season, week ending August 3; 1983/84 August 4; 1982/83 July 30. These respective dates include data through the 35th week of each season. 2/ Oranges--42.0 degree Brix, Grapefruit--40 degree Brix, and Tangerines--42 degree Brix. 3/ The 1982/83 season incorporate 53 weeks.

SOURCE: Florida Citrus Processors Association.

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